Connecting via Winsock to STN

Welcome to STN International! Enter x:x

FILE 'HOME' ENTERED AT 14:03:52 ON 28 JUL 2009

=> file reg

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Uploading C:\Program Files\Stnexp\Queries\10587100.str

ring nodes:
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
chain bonds:
6-13
ring bonds:
1-2 1-6 2-3 3-4 4-5 4-7 5-6 5-10 7-8 8-9 9-10 11-12 11-16 12-13 13-14
14-15 15-16 15-17 16-20 17-18 18-19 19-20
exact/norm bonds:
1-2 1-6 2-3 3-4 4-5 4-7 5-6 5-10 7-8 8-9 9-10
exact bonds:
6-13
normalized bonds:
11-12 11-16 12-13 13-14 14-15 15-16 15-17 16-20 17-18 18-19 19-20
isolated ring systems:
containing 11:

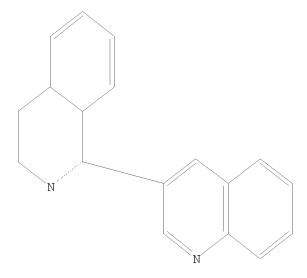
Match level:

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom 11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:Atom 18:Atom 19:Atom 20:Atom

L1 STRUCTURE UPLOADED

=> d l1 L1 HAS NO ANSWERS

L1 STR



Structure attributes must be viewed using STN Express query preparation.

=> s 11 sam

SAMPLE SEARCH INITIATED 14:04:45 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 819 TO ITERATE

100.0% PROCESSED 819 ITERATIONS 28 ANSWERS

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**

PROJECTED ITERATIONS: 14664 TO 18096

PROJECTED ANSWERS: 243 TO 877

L2 28 SEA SSS SAM L1

=> d scan

L2 28 ANSWERS REGISTRY COPYRIGHT 2009 ACS on STN

IN Quinoline, 3-[3,4-dihydro-3,3-dimethyl-5-(2-thienyl)-1-isoquinolinyl]-

MF C24 H20 N2 S

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):end

=> s 11 full

FULL SEARCH INITIATED 14:04:56 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 16407 TO ITERATE

100.0% PROCESSED 16407 ITERATIONS 602 ANSWERS

SEARCH TIME: 00.00.01

L3 602 SEA SSS FUL L1

=> file ca

=> s 13

L4 15 L3

=> d ibib abs fhitstr hitrn 1-15

L4 ANSWER 1 OF 15 CA COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 151:92844 CA

TITLE: Method using lifespan-altering compounds for altering

the lifespan of eukaryotic organisms, and screening

for such compounds

INVENTOR(S): Goldfarb, David Scott

PATENT ASSIGNEE(S): University of Rochester, USA SOURCE: U.S. Pat. Appl. Publ., 57pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent LANGUAGE: English

PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE
US 20090163545 A1 20090625 US 2008-XI341615 20081222
PRIORITY APPLN. INFO.: US 2007-16362P 20071221

US 2008-23801P 20080125

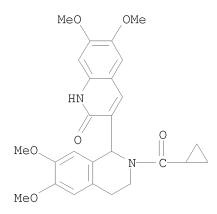
AB The invention discloses a method for altering the lifespan of a eukaryotic organism. The method comprises the steps of providing a lifespan-altering compound, and administering an effective amount of the compound to a eukaryotic organism, such that the lifespan of the organism is altered. In one embodiment, the compound is identified using the DeaD assay. [This abstract record is one of 20 records for this document necessitated by the large number of index entries required to fully index the document and publication system constraints.]

IT 838097-35-1

RL: PAC (Pharmacological activity); BIOL (Biological study) (method using lifespan-altering compds. for altering lifespan of eukaryotic organisms, and screening for such compds.)

RN 838097-35-1 CA

CN 2(1H)-Quinolinone, 3-[2-(cyclopropylcarbonyl)-1,2,3,4-tetrahydro-6,7-dimethoxy-1-isoquinolinyl]-6,7-dimethoxy- (CA INDEX NAME)



IT 838097-35-1

RL: PAC (Pharmacological activity); BIOL (Biological study) (method using lifespan-altering compds. for altering lifespan of eukaryotic organisms, and screening for such compds.)

L4 ANSWER 2 OF 15 CA COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 148:578981 CA

TITLE: Soil- or seed-treating agents comprising quinoline

compounds and salts thereof and plant disease control

with quinolines

INVENTOR(S): Ito, Hiroyuki; Tamagawa, Yasushi; Tanaka, Harukazu;

Ohara, Toshiaki

PATENT ASSIGNEE(S): Sankyo Agro Company, Limited, Japan

SOURCE: PCT Int. Appl., 70pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE

WO 2008066148 A1 20080605 WO 2007-JP73143 20071130

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA,

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CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI,
             GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG,
             KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME,
             MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL,
             PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN,
             TR, TI, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW
         RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,
             IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR, BF,
             BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW,
             GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ,
             BY, KG, KZ, MD, RU, TJ, TM
                                            AU 2007-326412
     AU 2007326412
                          Α1
                                20080605
                                                                    20071130
     IN 2009KN02411
                          Α
                                20090717
                                            IN 2009-KN2411
                                                                    20090629
PRIORITY APPLN. INFO.:
                                            JP 2006-325344
                                                                    20061201
                                                                 Α
                                            WO 2007-JP73143
                                                                    20071130
                                                                 W
                         MARPAT 148:578981
OTHER SOURCE(S):
GΙ
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$$R^3$$
 R^4 X_n X_n

AB Soil— or seed-treating agents with an excellent controlling effect against various plant pathogens (particularly, Pyricularia oryzae) comprise ≥ 1 quinoline (I, e.g., where R1, R2 = (un)substituted alkyl, (hetero)aryl, etc.; R3, R4 = H, (un)substituted alkyl, halo, alkoxy, etc.; X = halo, (un)substituted alkyl, etc.; Y = halo, OH, etc.; n = 0-4; m = 0-6) or a salt thereof. Thus, when rice plants which had been sprayed with a Pyricularia oryzae spore suspension were grown on soil treated with 400 g/10 are of I (R1, R2 = Me; R3, R4 = H; Xn = 5-F; Ym = H), rice blast disease development was not observed 7 days after inoculation.

II 861646-26-6

RL: AGR (Agricultural use); BSU (Biological study, unclassified); BIOL (Biological study); USES (Uses)

(soil- or seed-treating agents comprising quinolines and salts thereof and their use for control of plant diseases)

RN 861646-26-6 CA

CN Quinoline, 3-(5-fluoro-3,4-dihydro-3,3-dimethyl-1-isoquinolinyl)- (CA INDEX NAME)

IT 861646-26-6 861646-33-5 861646-37-9 861646-70-0 861646-76-6 861646-87-9 861646-90-4 861647-31-6 861647-32-7 861647-73-6 861647-74-7 861647-84-9 861647-85-0 861648-36-4 861648-37-5 861648-43-3 861648-44-4 861648-48-8 861648-49-9 861648-62-6 861648-63-7 952022-89-8

RL: AGR (Agricultural use); BSU (Biological study, unclassified); BIOL (Biological study); USES (Uses)

(soil- or seed-treating agents comprising quinolines and salts thereof and their use for control of plant diseases)

OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD

(1 CITINGS)

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 3 OF 15 CA COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 147:462227 CA

TITLE: Medical fungicides containing 3-[(di- or tetrahydro)isoquinolin-1-yl]quinolines

INVENTOR(S): Ito, Hiroyuki; Tamagawa, Yasushi PATENT ASSIGNEE(S): Sankyo Agro Co., Ltd., Japan SOURCE: Jpn. Kokai Tokkyo Koho, 54pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE		
JP 2007269686 PRIORITY APPLN. INFO.:	A	20071018	JP 2006-96830 JP 2006-96830	20060331 20060331		
OTHER SOURCE(S): GI	MARPAT	147:462227				

$$R^3$$
 R^4
 X_n
 R^2
 R^1
 X_n
 X_n

$$R^3$$
 R^2
 R^1
 N
 N
 N
 N
 N
 N

Medical fungicides contain title compds. I, II [R1, R2 = (un)substituted C1-6 alkyl, (un)substituted (hetero)aryl, (un)substituted aralkyl; R1CR2 may be linked to form (un)substituted C3-10 cycloalkyl; R3, R4 = H, (un)substituted C1-6 alkyl, halo, C1-6 alkoxy, OH; R3R4 may be linked to form C1-6 alkylidene; R3CR4 may be keto, (un)substituted C3-10 cycloalkyl; R5 = none, H, acyl, (un)substituted C1-6 alkyl, O; X = halo, (un)substituted C1-6 alkyl, (un)substituted (hetero)aryl, etc.; Y = halo, C1-6 alkyl, C1-6 alkoxy, OH; n = 0-4; m = 0-6; the doted line may be double bond], or their salts as active ingredients. Thus, I (R1 = R2 = Me, R3 = R4 = Ym = H, R5 = none, Xn = 5-F; the doted line is double bond) at 100 ppm showed \geq 80% antifungal activity against Candida glabrata, Cryptococcus neoformans, and Aspergillus fumigatus, and at 10 ppm against Trichophyton mentagrophytes, T. rubrum, and Microsporum gypseum.

IT 861646-26-6

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(medical fungicides containing [(di- or tetrahydro)isoquinolinyl]quinolines
effective at low dose)

RN 861646-26-6 CA

CN Quinoline, 3-(5-fluoro-3,4-dihydro-3,3-dimethyl-1-isoquinolinyl)- (CA INDEX NAME)

IT 861646-26-6 861646-33-5 861646-37-9 861646-70-0 861646-76-6 861646-87-9

861647-31-6 861647-32-7 861647-59-8 861647-84-9 861647-85-0 952022-89-8 952022-90-1 952022-91-2 952022-92-3

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(medical fungicides containing [(di- or tetrahydro)isoquinolinyl]quinolines
effective at low dose)

OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

L4 ANSWER 4 OF 15 CA COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 147:301004 CA

TITLE: Preparation of 1,2,3,4-tetrahydroquinolines and

pesticides containing them

INVENTOR(S): Ito, Hiroyuki; Kajino, Fumie; Fujiwara, Kota;

Morimoto, Soushi

PATENT ASSIGNEE(S): Sankyo Agro Co., Ltd., Japan SOURCE: Jpn. Kokai Tokkyo Koho, 45pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	AP	PLICATION NO.	DATE		
JP 2007217353	A	20070830	JP	2006-40318	20060217		
PRIORITY APPLN. INFO.:			JΡ	2006-40318	20060217		
OTHER SOURCE(S):	MARPAT	147:301004					

GΙ

$$R^{3}$$
 R^{4}
 R^{3}
 R^{2}
 R^{1}
 R^{5}
 R^{5}
 R^{6}
 R^{6}
 R^{6}
 R^{7}

Title compds. I [the dot line is single or double bond; R1, R2 = (1-3 halo-substituted) C1-6 alkyl, (hetero)aryl; R1NR2 may be C3-10 cycloalkyl; R3, R4 = H, C1-6 alkyl, halo; R3CR4 may be C3-10 cycloalkyl; R5 = H, acyl, O, (aryl-substituted) C1-6 alkyl; R6 = H, acyl, (1-3 halo- or aryl-substituted) C1-6 alkyl; X = halo, C1-6 alkyl; Y = halo, C1-6 alkyl(oxy), OH; p = 0, 1; m, n = 0-4; when the dot line is single bond, then p = 1; R5 = H, acyl, (aryl-substituted) C1-6 alkyl; when the dot line is double bond, then p = 0, 1; R5 = O] are prepared Thus, I (the dot line is double bond; R1-R4 = Me, p = 0, R6 = Ym = H, Xn = 5-F) showed 100% fungicidal activity against Pyricularia oryzae and Botrytis cinerea.

IT 861646-26-6, 3-(5-Fluoro-3,3-dimethyl-3,4-dihydroisoquinolin-1yl)quinoline
RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of tetrahydroquinolines as agrochem. fungicides)

RN 861646-26-6 CA

CN Quinoline, 3-(5-fluoro-3,4-dihydro-3,3-dimethyl-1-isoquinolinyl)- (CA INDEX NAME)

IT 861646-26-6, 3-(5-Fluoro-3,3-dimethyl-3,4-dihydroisoquinolin-1-yl)quinoline

RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of tetrahydroquinolines as agrochem. fungicides)
OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD
(1 CITINGS)

 ${\tt L4}$ ANSWER 5 OF 15 CA COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 146:163036 CA

TITLE: Preparation of 3-(isoquinolin-1-yl)quinoline

derivatives as agrochemical and horticultural

fungicides

INVENTOR(S): Ito, Hiroyuki; Komai, Hiroyuki; Fujiwara, Kota;

Tanaka, Harukazu; Tamagawa, Yasushi; Kajino, Fumie

PATENT ASSIGNEE(S): Sankyo Agro Company, Limited, Japan

SOURCE: PCT Int. Appl., 114pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PA'	PATENT NO.						KIND DATE					APPLICATION NO.						
WO	2007	0110	 22		A1 20070125			1	WO 2	006-	JP31	20060721						
	W:	ΑE,	AG,	AL,	AM,	ΑT,	ΑU,	AZ,	BA,	BB,	BG,	BR,	BW,	BY,	BZ,	CA,	CH,	
		CN,	CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	EG,	ES,	FI,	GB,	GD,	
		GE,	GH,	GM,	HN,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	KE,	KG,	KM,	KN,	KP,	
		KR,	KΖ,	LA,	LC,	LK,	LR,	LS,	LT,	LU,	LV,	LY,	MA,	MD,	MG,	MK,	MN,	
		MW,	MX,	MΖ,	NA,	NG,	NI,	NO,	NZ,	OM,	PG,	PH,	PL,	PT,	RO,	RS,	RU,	
		SC,	SD,	SE,	SG,	SK,	SL,	SM,	SY,	ТJ,	TM,	TN,	TR,	TT,	TZ,	UA,	UG,	
		US,	UZ,	VC,	VN,	ZA,	ZM,	ZW										
	RW:	ΑT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,	EE,	ES,	FI,	FR,	GB,	GR,	HU,	IE,	
		IS,	IT,	LT,	LU,	LV,	MC,	NL,	PL,	PT,	RO,	SE,	SI,	SK,	TR,	BF,	ВJ,	
		CF,	CG,	CI,	CM,	GΑ,	GN,	GQ,	GW,	ML,	MR,	NE,	SN,	TD,	TG,	BW,	GH,	
		GM,	ΚE,	LS,	MW,	MΖ,	NA,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	AM,	ΑZ,	BY,	
		KG,	KΖ,	MD,	RU,	ТJ,	TM											
PRIORIT	PRIORITY APPLN. INFO.:									JP 2	005-	2123	24	i	A 2	0050	722	
OTHER S	OTHER SOURCE(S):					MARPAT 146:16303				136								

$$R^2$$
 R^3
 R^4
 Q
 R^4
 Q

AB The title compds. (I) [the ring A, B = each (un)substituted benzene ring, C3-8 cycloalkyl ring optionally unsatd., or 5- or 6-membered heteroaryl ring containing 1-4 heteroatoms selected from O, N and S; R1-R4 = H, halogen, HO, acyloxy, acylthio, cyano, each (un)substituted C1-6 alkyl, C1-6 alkoxy, C1-6 alkylthio, C1-6 alkylsulfinyl, C1-6 alkylsulfonyl, C3-6 cycloalkyl, C3-6 cycloalkyloxy, C3-6 cycloalkylthio, C2-6 alkenyl, C2-6 alkenyl, C2-6 alkenylthio, C2-6 alkynyloxy, C2-6 alkynylthio, aryl, arylthio, heteroaryl, heteroarylthio, aralkyl, aralkyloxy, or aralkylthio; or at least 2 of R1-R4 together form (un)substituted C3-8 cycloalkyl ring optionally containing 1-3 heteroatoms selected from O, N, and S; or (R3 and R4) or (R3 and R4) together

GT

represent oxo; (R1 and R2) or (R3 and R4) together represent CH2; or (R1 and R3 or R4) or (R2 and R3 or R4) together represent a single bond; Q = N, (un)substituted NH; when n = an integer of 2-4, X = group A, O-(un)substituted N-hydroxy-C1-6 alkanimidoyl; when m = an integer of 2-6, Y = group A, HO; group A = halo, each (un)substituted C1-6 alkyl, C3-6 cycloalkyl, C2-6 alkenyl, C2-6 alkynyl, aryl, heteroaryl, C1-6 alkylthio, C1-6 alkylsulfinyl, C1-6 alkylsulfonyl, or NH2, acyl, cyano; n = an integer of 0-4; m = an integer of 0-6] or salts thereof are prepared These compds. show an excellent effect on a variety of plant pathogens, particularly for rice blast (Pyricularia oryzae), without causing damage to a host plant. Thus, 230 mg 2-chloroquinoline-3-carbonitrile and 350 mg 3-(2-fluorophenyl)-2,3-dimethylbutan-2-ol were added to 1.0 mL H2SO4 and stirred at room temperature for 1 h. The reaction mixture was poured into H2O

and

 $\,$ made alkaline by adding aqueous NH3 solution and extracted with EtOAc to give, after

purification by TLC, 9% 2-chloro-3-(5-fluoro-3,3,4,4-tetramethyl-3,4-dihydroisoquinolin-1-yl)quinoline (II). II and 3-(5-fluoro-3,4-dihydroisoquinolin-1-yl)quinoline at 300 ppm completely controlled Botrytis cinerea on tomato seedlings and Pyricularia oryzae on rice seedlings, resp.

IT 861648-43-3P, 4,4-Difluoro-3,3-dimethyl-8b-(quinolin-3-yl)-4,8bdihydro-3H-oxazireno[3,2-a]isoquinoline
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)

(intermediate; preparation of 3-(isoquinoline-1-yl)quinoline derivs. as agrochem. and horticultural fungicides)

RN 861648-43-3 CA

CN 3H-1,2-Oxazirino[3,2-a]isoquinoline, 4,4-difluoro-4,8b-dihydro-3,3-dimethyl-8b-(3-quinolinyl)- (CA INDEX NAME)

IT 861648-43-3P, 4,4-Difluoro-3,3-dimethyl-8b-(quinolin-3-yl)-4,8bdihydro-3H-oxazireno[3,2-a]isoquinoline 861648-62-6P,
3-(4,4-Difluoro-3,3-dimethyl-2-oxo-3,4-dihydroisoquinolin-1-yl)quinoline
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)

(intermediate; preparation of 3-(isoquinoline-1-yl)quinoline derivs. as agrochem. and horticultural fungicides)

919786-21-3P, 3-(5-Fluoro-3,4-dihydroisoquinolin-1-yl)quinoline 919786-74-6P, 3-(4,4-Difluoro-2-hydroxy-3,3-dimethyl-1,2,3,4-tetrahydroisoquinolin-1-yl)quinoline RL: AGR (Agricultural use); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses) (preparation of 3-(isoquinoline-1-yl)quinoline derivs. as agrochem. and

```
horticultural fungicides)
     919786-18-8P, 2-Chloro-3-(5-fluoro-3,3,4,4-tetramethyl-3,4-
IT
     dihydroisoquinolin-1-yl)quinoline 919786-20-2P,
     3-(5-Fluoroisoquinolin-1-yl)quinoline 919786-22-4P,
     3-(5-Fluoro-1,2,3,4-tetrahydroisoquinolin-1-yl)quinoline
     919786-23-5P, 3-(6-Fluoro-3,4-dihydroisoquinolin-1-yl)quinoline
     919786-24-6P, 3-(7-Fluoro-3,4-dihydroisoquinolin-1-yl)quinoline
     919786-25-7P, 3-(5-Chloro-3,4-dihydroisoquinolin-1-yl)quinoline
     919786-26-8P, 3-(6-Chloro-3,4-dihydroisoquinolin-1-yl)quinoline
     919786-27-9P, 3-(7-Chloro-3,4-dihydroisoquinolin-1-yl)quinoline
     919786-28-0P, 3-(5-Bromo-3,4-dihydroisoquinolin-1-yl)quinoline
     919786-29-1P, 3-(7-Methyl-3, 4-dihydroisoquinolin-1-yl)quinoline
     919786-30-4P, 3-(6-Methoxy-3,4-dihydroisoquinolin-1-yl)quinoline
     919786-31-5P, 3-(6,7-Dimethoxy-3,4-dihydroisoquinolin-1-
     yl)quinoline 919786-32-6P,
     3-(4-Methyl-3,4-dihydroisoquinolin-1-yl)quinoline 919786-33-7P,
     3-(5-Fluoro-4-methyl-3,4-dihydroisoquinolin-1-yl)quinoline
     919786-34-8P, 3-(5-Fluoro-4-ethyl-3,4-dihydroisoquinolin-1-
     v1)quinoline 919786-35-9P,
     3-(5-Fluoro-4-propyl-3,4-dihydroisoquinolin-1-yl)quinoline
     919786-36-0P, 3-(3-Methyl-3,4-dihydroisoquinolin-1-yl)quinoline
919786-37-1P, 3-(5-Chloro-3-methyl-3,4-dihydroisoquinolin-1-
     vl)quinoline 919786-38-2P,
     3-(5-Fluoro-3-methyl-3,4-dihydroisoquinolin-1-yl)quinoline
     919786-39-3P, 3-(5-Fluoro-3,4-dimethyl-3,4-dihydroisoguinolin-1-
     vl)quinoline 919786-40-6P,
     3-(5-Fluoro-3-methyl-4-ethyl-3,4-dihydroisoquinolin-1-yl)quinoline
     919786-41-7P, 3-(5-Fluoro-3-methyl-4-propyl-3,4-dihydroisoquinolin-
     1-y1)quinoline 919786-42-8P,
     3-(5-Chloro-3,4-dimethyl-3,4-dihydroisoquinolin-1-yl)quinoline
     919786-43-9P, 3-(5-Fluoro-3-ethyl-4-methyl-3,4-dihydroisoquinolin-
     1-yl)quinoline 919786-44-0P,
     3-(4,4-Dimethyl-3,4-dihydroisoquinolin-1-yl)quinoline 919786-45-1P
     , 1'-(Quinolin-3-yl)-3'H-spiro[cyclopropane-1,4'-isoquinoline]
     919786-46-2P, 1'-(Quinolin-3-yl)-3'H-spiro(cyclobutane-1,4'-
     isoquinoline] 919786-47-3P,
     1'-(Quinolin-3-yl)-3'H-spiro[cyclohexane-1,4'-isoquinoline]
     919786-48-4P, 3-(5-Fluoro-4,4-dimethyl-3,4-dihydroisoguinolin-1-
     v1)quinoline 919786-49-5P,
     5'-Fluoro-1'-(quinolin-3-yl)-3'H-spiro[cyclopentane-1,4'-isoquinoline]
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ΤТ
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OS.CITING REF COUNT:
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REFERENCE COUNT:
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     ANSWER 6 OF 15 CA COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER:
                         143:193918 CA
TITLE:
                         Preparation of quinoline compounds as agricultural
                         fungicides
```

INVENTOR(S): Ito, Hiroyuki; Fujiwara, Kota; Morimoto, Munetsugu;

Tanaka, Harukazu; Tamagawa, Yasushi; Komai, Hiroyuki

PATENT ASSIGNEE(S): Sankyo Agro Company, Limited, Japan

SOURCE: PCT Int. Appl., 173 pp.

CODEN: PIXXD2
DOCUMENT TYPE: Patent

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

P#	ATENT	NO.			KIND DATE			APPLICATION NO.							DATE		
WC	2005	0709	 17		A1	_	2005	0804					20050121				
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PRIORIT	Y APP	LN.	INFO	.:						JP 2	004-	1536	0		A 2	0040	123
										WO 2	005-	JP11	71		W 2	0050	121
OTHER S	OURCE	(S):			MAR	PAT	143:	1939	18								
GI																	

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Title compds. I, II, III, IV [R1, R2 = optionally substituted alkyl with halo, etc.; R3, R4 = H, halo, etc.; R5 = H, acyl, etc.; X = halo, etc.; Y = halo, etc.; n = 0-4; m = 0-6] were prepared For example, cyclization of quinoline-3-carbonitrile with a mixture of 1-fluoro-(2-methylpropen-1-yl)benzene and 1-fluoro-(2-methylpropen-2-yl)benzene in the presence of methanesulfonic acid afforded 3-(5-fluoro-3,3-dimethyl-3,4-dihydroisoquinolin-1-yl)quinoline (V) in 47% yield. Compds. V exhibited the fungicidal activity of 100% against pyricularia oryzae. Formulations are given.

IT 861646-19-7P
RL: AGR (Agricultural use); BSU (Biological study, unclassified); RCT

RL: AGR (Agricultural use); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(preparation of quinoline compds. as agricultural fungicides)

RN 861646-19-7 CA

CN Quinoline, 3-(3,4-dihydro-3,3-dimethyl-1-isoquinolinyl)- (CA INDEX NAME)

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     RL: AGR (Agricultural use); BSU (Biological study, unclassified); RCT
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        (preparation of quinoline compds. as agricultural fungicides)
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     RL: AGR (Agricultural use); BSU (Biological study, unclassified); SPN
     (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES
     (Uses)
        (preparation of quinoline compds. as agricultural fungicides)
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OS.CITING REF COUNT:
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REFERENCE COUNT:
                               THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS
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    ANSWER 7 OF 15 CA COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER:
                         142:411286 CA
TITLE:
                         A versatile synthesis of pyrazolo[3,4-c]isoquinoline
```

derivatives by reaction of 4-aryl-5-aminopyrazoles with aryl/heteroaryl aldehydes: the effect of the

heterocycle on the reaction pathways

Bogza, Sergei L.; Kobrakov, Konstantin I.; Malienko, AUTHOR(S):

Anna A.; Perepichka, Igor F.; Sujkov, Sergei Yu.; Bryce, Martin R.; Lyubchik, Svetlana B.; Batsanov,

ΙI

Andrei S.; Bogdan, Natalya M.

CORPORATE SOURCE: L. M. Litvinenko Institute of Physical Organic

Chemistry and Coal Chemistry, National Academy of

Sciences of Ukraine, Donetsk, 83114, Ukraine SOURCE:

Organic & Biomolecular Chemistry (2005), 3(5), 932-940

CODEN: OBCRAK; ISSN: 1477-0520

PUBLISHER: Royal Society of Chemistry

DOCUMENT TYPE: Journal English LANGUAGE:

CASREACT 142:411286 OTHER SOURCE(S):

GΙ

The reaction of 4-(3,4-dimethoxyphenyl)-5-aminopyrazoles I (R1 = Me, Et,AΒ Ph, PhCH2) with aromatic and heterocyclic aldehydes R2CHO (R2 = Ph, 3-ClC6H4, 4-Et2NC6H4, 3-pyridyl, 2-quinolinyl, 1,2,3-thiadiazol-5-yl) in strong acidic media (trifluoroacetic or formic acid) produced the intermediate pyrazolyl azomethines, which undergo cyclization, similar to the Pictet-Spengler condensation, to give, after in situ aromatization, 5-aryl(heteroaryl)-pyrazolo[3,4-c]isoquinolines II. Whereas for benzaldehyde and its derivs. this one-pot synthesis presents a convenient general route to 5-aryl-pyrazolo[3,4-c]isoquinolines II, in the case of heterocyclic aldehydes the product structure varies markedly with the structure of the aldehyde used: (i) 3-pyridyl-, 3-quinolyl-, 3-thienyl-, and 1,2,3-thiadiazolyl-5-carboxaldehydes give pyrazolo[3,4-c]isoquinolines II; (ii) 1-methylbenzimidazolyl-2-carboxaldehyde gives only intermediate azomethine, which does not cyclize; (iii) 1-R3-3-indolylcarboxaldehydes (R3 = H, Me, PhCH2) eliminate the heteroaryl fragment resulting in 5-unsubstituted pyrazolo[3,4-c]isoquinolines II (R2 = H). Thienyl-2-carboxaldehyde reacts by both pathways (i) and (iii) depending on the reaction conditions. The single crystal X-ray structures for II (R1 = Me, R2 = 2-thienyl; R1 = PhCH2, R2 = 4-Et2NC6H4; R1 = Me, R2 = H)provide confirmation of the different types of products formed in these reactions. Mechanisms which explain these transformations are presented. 850411-73-3P ΙT

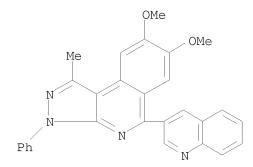
Page 17

RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of pyrazolo[3,4-c]isoquinolines by Pictet-Spengler condensation of (dimethoxyphenyl)aminopyrazoles with aromatic or heteroarom. aldehydes followed by aromatization)

RN 850411-73-3 CA

CN 3H-Pyrazolo[3,4-c]isoquinoline, 7,8-dimethoxy-1-methyl-3-phenyl-5-(3-quinolinyl)- (CA INDEX NAME)



IT 850411-73-3P

RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of pyrazolo[3,4-c]isoquinolines by Pictet-Spengler condensation of (dimethoxyphenyl)aminopyrazoles with aromatic or heteroarom. aldehydes followed by aromatization)

OS.CITING REF COUNT: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD

(2 CITINGS)

REFERENCE COUNT: 65 THERE ARE 65 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 8 OF 15 CA COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 142:219282 CA

TITLE: Pyrazoloisoquinoline derivatives as kinase inhibitors,

and their preparation, pharmaceutical compositions,

and use in the treatment of diseases involving

increased NIK activity.

INVENTOR(S): Majid, Tahir N.; Hopkins, Corey; Pedgrift, Brian L.;

Collar, Nicola; Wirtz-Brugger, Friederike; Merrill,

Jean

PATENT ASSIGNEE(S): Aventis Pharmaceuticals Inc., USA

SOURCE: PCT Int. Appl., 94 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT		KIND DATE					APPL	ICAT	DATE								
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     BR 2003018383
                          Α
                                 20060725
                                             BR 2003-18383
                                                                     20030703
     JP 2007521227
                           Τ
                                 20070802
                                             JP 2005-507449
                                                                     20030703
     AT 386034
                           Τ
                                 20080315
                                             AT 2003-742433
                                                                     20030703
     MX 2005013485
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                                             MX 2005-13485
                                                                     20051213
                          Α
     MX 2005013486
                                 20080929
                                             MX 2005-13486
                                                                     20051213
                          Α
                                             KR 2006-700178
     KR 2006063872
                                 20060612
                                                                     20060103
                          Α
     IN 2006CN00034
                                 20070601
                                             IN 2006-CN34
                                                                     20060103
                          Α
PRIORITY APPLN. INFO.:
                                             US 2003-461795
                                                                  Α
                                                                     20030613
                                             WO 2003-US21144
                                                                     20030703
                         CASREACT 142:219282; MARPAT 142:219282
OTHER SOURCE(S):
GΙ
```

Ν В Ι

AΒ Novel pyrazoloisoquinoline derivs. I, useful as kinase inhibitors, are disclosed [wherein: A = (un)substituted alkyl, OH or derivs., SH or derivs., CO2H or derivs., NH2 or derivs., cyano, (un)substituted heteroaryl, cycloalkyl, or heterocyclyl; B = bond, (un)substituted CH:CH, C.tplbond.C, O(CH2)1-4, O, S, CO, (un)substituted NH, NHCO, CONH, NHSO2, SO2NH, NHCONH, or C1-4 alkylene; D = (un) substituted alkyl, heteroaryl, heterocyclyl, aryl, or cycloalkyl; or BD = H, halo, fluoroalkoxy, (un) substituted alkyl; R = H, alkyl, (un) substituted arylalkyl; X, Z = H, alkyl, OH, alkoxy, halo, fluoroalkyl, CO2H or derivs., NH2 or derivs., cyano, SH or derivs., (un) substituted heterocyclyl or cycloalkyl; with provisos]. I are suitable for producing pharmaceuticals for the prophylaxis and therapy of diseases whose course involves an increased activity of NIK. Approx. 75 examples were prepared, and these plus addnl. compds. are individually claimed. For instance, 3-methoxybenzoic acid was condensed with 3-methyl-5-phenyl-1H-pyrazol-4-ylamine using HOBT and DIPC, and the resultant benzamide derivative was cyclized by treatment with P2O5 and POC13 in xylene at 160° , to give title compound II. In a test for inhibition of release of IL1 β , TNF α , and IL6 in LPS-stimulated heparinized whole human blood, II had IC50 values of 1.3, 1.2, and 7

OMe

ΙI

 μM , resp.

824968-78-7P, 3-Methyl-5-(quinolin-3-yl)-1H-pyrazolo[4,3-ΙT

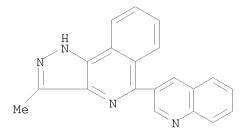
c]isoquinoline

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES

(drug candidate; preparation of pyrazoloisoguinoline derivs. as NIK inhibitors)

RN 824968-78-7 CA

CN 1H-Pyrazolo[4,3-c]isoquinoline, 3-methyl-5-(3-quinolinyl)- (CA INDEX NAME)



824968-78-7P, 3-Methyl-5-(quinolin-3-yl)-1H-pyrazolo[4,3-ΙT

c]isoquinoline

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(drug candidate; preparation of pyrazoloisoquinoline derivs. as NIK inhibitors)

OS.CITING REF COUNT: THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD 2

(2 CITINGS)

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 9 OF 15 CA COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 142:134600 CA

TITLE: Preparation of pyrazoloisoquinolines as $NF\kappa B$ -inducing kinase (NIK) inhibitors

INVENTOR(S): Majid, Tahir Nadeem; Hopkins, Corey; Pedgrift, Brian

Leslie; Collar, Nicola; Wirtz-Brugger, Friederike;

Merrill, Jean

Aventis Pharmaceuticals Inc., USA PATENT ASSIGNEE(S): SOURCE: U.S. Pat. Appl. Publ., 41 pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE			
US 20050009859	A1	20050113	US 2003-613588	20030703			
US 7132428	В2	20061107					
PRIORITY APPLN. INFO.:			US 2003-613588	20030703			
OTHER SOURCE(S):	MARPAT	142:134600					
GT							

Title compds. [I; A = (substituted) alkyl, heteroaryl, heterocyclyl; B = AΒ bond, C:CR1, C.tplbond.C, O(CH2)a, O, S, CO, NR2, NR2CO, (substituted) alkylene, etc.; R1 = H, alkyl, aryl, etc.; R2 = alkyl, OH, alkoxy, halo, etc.; a = 1-4; D = (substituted) alkyl, heteroaryl, heterocyclyl, aryl, cycloalkyl; BD = H, halo, fluoroalkyl, fluoroalkoxy, etc.; R = H, alkyl, (substituted) aralkyl; X, Z = H, alkyl, OH, alkoxy, halo, fluoroalkyl, CO2R1, N(R1)2, cyano, SR1, SOR1, SO2R1, (substituted) heterocyclyl, cycloalkyl, etc.; with provisos], were prepared Thus, hydroxybenzotriazole, diisopropyl carbodiimide, benzoic acid, and 3,5-diphenyl-1H-pyrazol-4-ylamine were stirred 12 h in MeCN to give a residue which was heated with P2O5 and POCl3 in xylene at 150° for 4 h followed by stirring at room temperature for 12 h to give 3,5-diphenyl-1H-pyrazolo[4,3-c]isoquinoline. The latter inhibited ${\tt TNF}\alpha$ release in LPS-stimulated human peripheral blood lymphocytes with IC50 = 1.9 nM.

IT 824968-78-7P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(claimed compound; preparation of pyrazoloisoquinolines as $\text{NF}\kappa\text{B--inducing}$ kinase inhibitors)

RN 824968-78-7 CA

CN 1H-Pyrazolo[4,3-c]isoquinoline, 3-methyl-5-(3-quinolinyl)- (CA INDEX NAME)

IT 824968-78-7P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(claimed compound; preparation of pyrazoloisoquinolines as NF $\kappa \text{B--inducing}$ kinase inhibitors)

OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 10 OF 15 CA COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 108:21688 CA ORIGINAL REFERENCE NO.: 108:3675a,3678a

TITLE: Isoquinolylquinoline derivatives: Part IV - synthesis

of some 4-substituted

3-(3,4-dihydro-3-methyl-1-isoquinolyl)-7-

chloroquinoline derivatives as possible trypanocidal

agents

AUTHOR(S): Das, Michael; Chaudhuri, Subhankar; Ray, Manotosh R.;

Chakravorti, S. S.

CORPORATE SOURCE: Bengal Immunity Res. Inst., Calcutta, 700 017, India

SOURCE: Indian Journal of Chemistry, Section B: Organic

Chemistry Including Medicinal Chemistry (1986),

25B(10), 1072-8

CODEN: IJSBDB; ISSN: 0376-4699

DOCUMENT TYPE: Journal LANGUAGE: English

OTHER SOURCE(S): CASREACT 108:21688

GΙ

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

- AB Cyclization of amide I (R = CONHCHMeCH2Ph) using polyphosphoric acid and POC13 affords (methyldihydroisoquinolyl)quinoline II (R1 = OH) (III), which upon treatment with POC13 is converted to II (R1 = Cl) (IV). IV reacts with NH3, N2H4·xH2O, and amines to give II (R1 = NH2, NHNH2, morpholino, piperidino, pyrrolidino). Reaction of IV with NaOEt affords aromatic derivs. V (R2 = OEt, C1; R3 = H). Reduction of III with NaBH4 gives (tetrahydromethylisoquinolyl)chloroquinoline VI and dehydrogenation of III with S8 in the presence of Tetralin gives [methylnaphthylisoquinolyl]dichloroquinoline V (R2 = Cl, R3 = β -naphthyl). Acid hydrolysis of IV and subsequent reaction with acetamidocresol derivs. affords (dihydroisoquinolyl) (arylamino)quinolines VII (R4 = NEt2, morpholino, piperidino). Compds. III, IV, II (R1 = NHNH2), and VII (same R4) showed no significant trypanocidal activity against T. cruzi and T. evansi in mice.
- IT 111826-43-8P
 - RL: SPN (Synthetic preparation); PREP (Preparation) (preparation and trypanocidal activity of)
- RN 111826-43-8 CA
- CN Quinoline, 7-chloro-3-(3,4-dihydro-3-methyl-1-isoquinolinyl)-4-hydrazinyl-(CA INDEX NAME)

```
NH-NH_2
                    Ме
     111826-43-8P 111826-49-4P 111826-50-7P
ΙT
     111826-51-8P
     RL: SPN (Synthetic preparation); PREP (Preparation)
        (preparation and trypanocidal activity of)
     111826-42-7P 111826-44-9P 111826-45-0P
ΤТ
     111826-46-1P 111826-47-2P 111826-48-3P
     111826-52-9P 111826-53-0P 111826-54-1P
     111826-55-2P 111826-56-3P 111826-57-4P
     111826-58-5P 111826-59-6P 111826-60-9P
     111826-61-0P 111826-62-1P 111826-63-2P
     111852-19-8P 111852-20-1P 111910-96-4P
     111941-88-9P
     RL: SPN (Synthetic preparation); PREP (Preparation)
        (preparation of)
ΙT
     111826-40-5P
     RL: SPN (Synthetic preparation); PREP (Preparation)
        (preparation, chlorination, borohydride reduction, and trypanocidal
activity of)
     111826-41-6P
ΙT
     RL: SPN (Synthetic preparation); PREP (Preparation)
        (preparation, reactions and trypanocidal activity of)
                               THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD
OS.CITING REF COUNT:
                         1
                                (1 CITINGS)
     ANSWER 11 OF 15 CA COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER:
                         105:133726 CA
ORIGINAL REFERENCE NO.:
                         105:21577a,21580a
TITLE:
                         Isoquinolylquinoline derivatives. Part III.
                         Synthesis of some 4-substituted
                         3-(3', 4'-dihydro-1'-isoquinoly1) quinoline derivatives
                         as possible antifilarial agents
                         Chakravorti, S. S.; Sen Gupta, Pranab K.; Chaudhuri,
AUTHOR(S):
                         Subhankar; Das, Michael; Bhattacharya, Sipra;
                         Chaudhuri, P. K.; Bose, A. N.
                         Bengal Immun. Res. Inst., Calcutta, 700 017, India
CORPORATE SOURCE:
                         Indian Journal of Chemistry, Section B: Organic
SOURCE:
                         Chemistry Including Medicinal Chemistry (1985),
                         24B(7), 737-46
CODEN: IJSBDB; ISSN: 0376-4699
DOCUMENT TYPE:
                         Journal
LANGUAGE:
                         English
OTHER SOURCE(S):
                         CASREACT 105:133726
GΙ
```

AB Bischler-Napieralski cyclization of quinolinyl amides I (R1 = OMe, R2 = R3 = H; R1 = R3 = H, R2 = OMe; R1 = R2 = H, R3 = OM) using polyphosphonic acid or polyphosphonic acid-POCl3 gave isoquinolylquinolines II (R4 = OH, R5 = H). II (R1 = R2 = H, R3 = OMe, R4 = OH) was converted in several steps to III (R = HCl). III.HCl had significant antifilarial activity.

IT 24489-66-5
RL: RCT (Reactant); RACT (Reactant or reagent) (condensation of, with acetamido(diethylamino)cresol)
RN 24489-66-5 CA

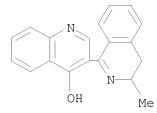
Quinoline, 4,7-dichloro-3-(3,4-dihydro-1-isoquinolinyl)- (CA INDEX NAME)

III

CN

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(preparation and antifilarial activity of)
     28970-37-8P
ΙT
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
     (Reactant or reagent)
        (preparation and reaction of, with phosphorus oxychloride, chloroquinoline
     104386-06-3P 104386-07-4P 104386-26-7P
ΙT
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
     (Reactant or reagent)
        (preparation and reactions of)
ΙT
     24489-60-9P 104386-04-1P 104386-05-2P
     104386-08-5P 104386-09-6P 104386-10-9P
     104386-11-0P 104386-12-1P 104386-13-2P
     104386-14-3P 104386-15-4P 104386-17-6P
     104386-18-7P 104386-19-8P 104386-20-1P
     104386-21-2P 104386-22-3P 104386-23-4P
     104386-24-5P 104386-25-6P 104386-27-8P
     104386-28-9P 104386-29-0P 104386-30-3P
     104386-31-4P 104386-32-5P 104386-36-9P
     104386-37-0P 104386-38-1P 104386-40-5P
     104386-41-6P 104386-42-7P 104386-43-8P
     104386-44-9P 104386-45-0P 104386-46-1P
     104386-47-2P 104386-48-3P 104386-49-4P
     104386-50-7P 104386-51-8P 104386-52-9P
     104386-53-0P 104386-54-1P 104406-74-8P
     108779-02-8P
     RL: SPN (Synthetic preparation); PREP (Preparation)
        (preparation of)
                               THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD
OS.CITING REF COUNT:
                               (2 CITINGS)
     ANSWER 12 OF 15 CA COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER:
                         73:55947 CA
ORIGINAL REFERENCE NO.: 73:9189a,9192a
TITLE:
                         Isoquinolylquinoline derivatives. II. Synthesis of
                         some azaheterocyclic derivatives as possible
                         antispasmodic or amoebicidal agents
AUTHOR(S):
                         Das Gupta, Ahindra C.; Raychaudhuri, Amitabha;
                         Chakravorti, Sibani S.; Basu, U. P.
CORPORATE SOURCE:
                        Bengal Immunity Res. Inst., Calcutta, India
                         Indian Journal of Chemistry (1970), 8(6), 505-8
SOURCE:
                         CODEN: IJOCAP; ISSN: 0019-5103
DOCUMENT TYPE:
                         Journal
LANGUAGE:
                        English
     For diagram(s), see printed CA Issue.
GΙ
     I-VI were prepared I was synthesized by Bischler-Napieralski cyclization of
AB
     4-hydroxy-N-(\alpha-methyl)]-3-quinolinecarboxamide, obtained by
     the interaction of Et 4-hydroxy-3-quinolinecarboxylate with
     \alpha-methylphenethylamine. II was obtained by a similar cyclization of
     4-hydroxy-N-(2-phenylcyclohexyl)-3-quinolinecarboxamide, obtained by the
     interaction of ethyl 4-hydroxy-3-quinolinecarboxylate and
     2-phenylcyclohexylamine. III-VI were obtained by the interaction of
     3-(3,4-dihydro-1-isoquinolyl)-4,7-dichloroquinoline with piperidine,
     morpholine, 1-carbethoxypiperazine, and 1-benzylpiperazine, resp.
ΙT
     28970-37-8P
     RL: SPN (Synthetic preparation); PREP (Preparation)
        (preparation of)
```

RN 28970-37-8 CA CN 4-Quinolinol, 3-(3,4-dihydro-3-methyl-1-isoquinolinyl)- (CA INDEX NAME)



L4 ANSWER 13 OF 15 CA COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 72:12529 CA ORIGINAL REFERENCE NO.: 72:2273a,2276a

TITLE: Isoquinolylquinoline derivatives. I. Synthesis of

some 3-(3,4-dihydroisoquinol-1-yl-4-substituted

quinoline derivatives as possible spasmolytic agents

AUTHOR(S): Chakravorti, Sibani; Das Gupta, Ahindra C.;

Raychaudhuri, Amitabha; Basu, Uma P.

CORPORATE SOURCE: Bengal Immunity Res. Inst., Calcutta, India

SOURCE: Indian Journal of Chemistry (1969), 7(10), 1010-16

CODEN: IJOCAP; ISSN: 0019-5103

DOCUMENT TYPE: Journal LANGUAGE: English

GI For diagram(s), see printed CA Issue.

AΒ Bischler-Napieralski cyclizations of the amides (Ia or Ic), from the reaction of phenethylamine with Et 4-hydroxy-3-quinolinecarboxylate or its 7-chloro derivative with polyphosphoric acid (PPA)-POC13 mixture or PPA alone afforded 3,4-dihydroisoquinolylquinoline derivs., which with POC13 were converted to the corresponding chloro derivs. Ia, with POC13 in boiling benzene or PhMe, gave Ib instead of undergoing the expected cyclodehydration. The reactivity of the Cl atom in the 4-position of the quinoline ring of 3-(3,4-dihydro-1-isoquinolyl)-4-chloroquinoline was ascertained through it s reaction with NaOMe and secondary amines like pyrrolidine, piperidine, morpholine, piperazine, 1-carbethoxy-piperazine, 1-benzylpiperazine, resulting in the formation of the expected azaheterocyclic derivs., some of which show moderately high musculotropic spasmolytic activity. During the dehydrogenation of some of these 3,4-dihydroisoquinolylquinolines with Pd/C, interesting examples of hydrogenolysis by H transfer were recorded.

IT 24485-03-8P

RN 24485-03-8 CA

CN Quinoline, 4,7-dichloro-3-(1-isoquinoliny1)- (CA INDEX NAME)

```
C.1
     24485-03-8P 24485-04-9P 24485-05-0P
     24485-06-1P 24489-58-5P 24489-59-6P
     24489-60-9P 24489-61-0P 24489-62-1P
     24489-63-2P 24489-64-3P 24489-65-4P
     24489-66-5P 24489-67-6P 24489-68-7P
     24489-69-8P 24489-70-1P 24489-71-2P
     24489-72-3P 24489-73-4P 24489-74-5P
     24489-75-6P 24489-76-7P 24489-77-8P
     24489-78-9P 24489-79-0P 24489-80-3P
     24489-81-4P 24489-82-5P 24489-83-6P
     24489-84-7P 24489-85-8P 24500-86-5P
     24500-87-6P 24500-88-7P 24500-89-8P
     24536-43-4P
     RL: SPN (Synthetic preparation); PREP (Preparation)
        (preparation of)
                               THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD
OS.CITING REF COUNT:
                                (1 CITINGS)
     ANSWER 14 OF 15 CA COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER:
                         51:25556 CA
ORIGINAL REFERENCE NO.:
                         51:5084f-h
TITLE:
                         Heterocyclic compounds. VIII. Synthesis of
                         1-quinolylisoquinolines
AUTHOR(S):
                         Govindan, T. K.
CORPORATE SOURCE:
                         Univ. Madras
SOURCE:
                         Proceedings - Indian Academy of Sciences, Section A
                         (1956), 44A, 126-9
                         CODEN: PISAA7; ISSN: 0370-0089
DOCUMENT TYPE:
                         Journal
LANGUAGE:
                         Unavailable
     1-Quinolyl-3-methyl-3,4-dihydro-6,7-methylenedioxyisoquinolines (I) were
AB
     prepared Piperonal condensed with nitroethane and the product reduced with
     LiAlH4 in Et20 gave 3,4-(CH2O2)C6H3CH:C(NH2)CH3 (II), b17 152°. II
     in C6H6 refluxed with quinolinecarboxylic acid chloride-HCl (III), (or by
     heating II with the Et ester, for R = 4-quinolyl and 7-quinolyl), gave
     3,4-(CH2O2)C6H3CH:C(CH3)NHCOR (IV), which was cyclized by heating with
     POC13 in C6H6 or PhMe to I. The following I were prepared (R, III, m.p. of
     IV, solvent of crystallization, m.p. of picrate, m.p. of I, solvent of
crystallization,
     and m.p. of picrate given): 2-quinolyl, quinaldinic acid, 116°,
     petr. ether, -, 141°, petr. ether, -; 3-quinolyl,
     quinoline-3-carboxylic acid, 110-14^{\circ}, dilute EtOH (128^{\circ} when
     dried over P2O5), 182° (from AcOH), 98-100°, dilute MeOH,
     201° (from MeOH); 4-quinolyl, cinchoninic acid, 144°, Me2CO,
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204° (from EtOH), -, -, 202° (from MeOH); 5-quinoly1,
     quinoline-5-carboxylic acid, 173°, C6H6-petr. ether, -, -, -,
     175° (from EtOH); 6-quinolyl, quinoline-6-carboxylic acid,
     142°, petr. ether, -, 122°, petr. ether, -; 7-quinoly1,
     quinoline-7-carboxylic acid, 165°, Me2CO, -, 140°, petr.
     ether, -; 8-quinolyl, quinoline-8-carboxylic acid, -, -, 177° (from
     PhMe), 164^{\circ}, MeOH, -.
     109805-16-5P, 1,3-Dioxlo[4,5-q]isoquinoline,
     7,8-dihydro-7-methyl-5-[3-quinolyl]-
     RL: PREP (Preparation)
        (preparation of)
RN
     109805-16-5 CA
     1,3-Dioxolo[4,5-g]isoquinoline, 7,8-dihydro-7-methyl-5-(3-quinolinyl)-
CN
     (CA INDEX NAME)
Ме
ΙT
     109805-16-5P, 1,3-Dioxlo[4,5-g]isoquinoline,
     7,8-dihydro-7-methyl-5-[3-quinolyl]- 116151-51-0P,
     1,3-Dioxlo[4,5-g]isoquinoline, 7,8-dihydro-7-methyl-5-[3-quinolyl]-,
     dipicrates
     RL: PREP (Preparation)
        (preparation of)
     ANSWER 15 OF 15 CA COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER:
                         46:630 CA
ORIGINAL REFERENCE NO.:
                         46:116q-i
TITLE:
                         Synthesis of compounds related to papaverine. IV.
                         Syntheses of 1-heterocyclic isoquinolines
AUTHOR(S):
                         Fujisawa, Masao
SOURCE:
                         Yakuqaku Zasshi (1945), 2(No. 9/10A), 2-3
                         CODEN: YKKZAJ; ISSN: 0031-6903
DOCUMENT TYPE:
                         Journal
I ANGUAGE:
                         Unavailable
AΒ
     The following 6,7-methylenedioxyisoquinolines with heterocyclic
     substituents in the 1-position were prepared: 1-(2-pyridy1)-3-Me, noncryst.
     (picrate, orange needles, decompose 203°); 1-(3-pyridyl)-3-Me,
     colorless needles, m. 193° (picrate, yellow needles, m.
     199^{\circ}); 1-(1-methyl-3-piperidyl)-2-methyl-1,2,3,4-tetrahydro
     (picrolonate, yellow needles, decompose 230-1°);
     1-(1-methyl-4-phenyl-4-piperidyl)-3-Me, fine colorless needles, m.
     220° (picrate, yellow needles, m. 228°); 1-(2-quinoly1)-3-Me
     (picrate, yellow needles, m. 223-4°; methiodide, golden yellow
     needles, decompose 230°); 1-(2-phenyl-3-quinolyl)-3-Me, colorless
     prisms, m. 258-9°; 1-(1-piperidylmethyl)-3-Me (picrate, yellow
     needles, m. 216°); 1 -(3,5-dimethyl-4-isoxazolyl)-3-Me, colorless
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needles, m. 147° (HCl salt, pale blue, rhombic crystals, decompose
     248.5°); 1-(1,2,3,4-tetrahydro-1-isoquinolylmethyl)-3-methyl-3,4-
     dihydro (picrolonate, orange needles, decompose 251.5°); and
     1-(4-methyl-5-thiazolyl)-3-Me (picrate, yellow needles, m. 196°).
     854865-61-5P, Quinoline, 3-(7-\text{methyl}-1,3-\text{dioxolo}[4,5-q]] is equinolin-
ΙT
     5-y1)-2-pheny1-
     RL: PREP (Preparation)
        (preparation of)
     854865-61-5 CA
RN
     1,3-Dioxolo[4,5-g]isoquinoline, 7-methyl-5-(2-phenyl-3-quinolinyl)- (CA
CN
     854865-61-5P, Quinoline, 3-(7-\text{methyl}-1,3-\text{dioxolo}[4,5-g]] is oquinolin-
ΙT
     5-yl)-2-phenyl- 854865-61-5P, 1,3-Dioxolo[4,5-g]isoquinoline,
     7-methyl-5-(2-phenyl-3-quinolyl)-
     RL: PREP (Preparation)
        (preparation of)
=> d his
     (FILE 'HOME' ENTERED AT 14:03:52 ON 28 JUL 2009)
     FILE 'REGISTRY' ENTERED AT 14:04:13 ON 28 JUL 2009
     FILE 'REGISTRY' ENTERED AT 14:04:27 ON 28 JUL 2009
L1
                STRUCTURE UPLOADED
             28 S L1 SAM
L2
T.3
            602 S L1 FULL
     FILE 'CA' ENTERED AT 14:04:59 ON 28 JUL 2009
             15 S L3
L4
=> file marpat
=> s 11 full
FULL SEARCH INITIATED 14:06:15 FILE 'MARPAT'
FULL SCREEN SEARCH COMPLETED -
                                    3795 TO ITERATE
100.0% PROCESSED
                     3795 ITERATIONS
                                                                   29 ANSWERS
SEARCH TIME: 00.00.02
L5
             29 SEA SSS FUL L1
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=> d ibib abs fqhit 1-29

L5 ANSWER 1 OF 29 MARPAT COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 149:288686 MARPAT

TITLE: Indolines as functionally selective alpha2C

adrenoreceptor agonists and their preparation
INVENTOR(S): De Lera Ruiz, Manuel; McCormick, Kevin D.; Boyce,

INVENTOR(S):

De Lera Ruiz, Manuel; McCormick, Kevin D.; Boyce,
Christopher W.; Aslanian, Robert G.; Yu, Younong;
Mangiaracina, Pietro; Zheng, Junying; Berlin, Michael

Y.; Ciesla, Stephanie L.; Huang, Chia-Yu; Liang, Bo

PATENT ASSIGNEE(S): Schering Corporation, USA; Pharmacopeia, Inc.

SOURCE: PCT Int. Appl., 145pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PA	TENT	NO.		KI	ND	DATE			А	PPLI	CATI	ON N	Ο.	DATE					
WO	2008	 1004	 56	 A	2	2008	 0821		W	 O 20	 08-U	 S176	 5	2008	0211				
WO	2008	1004	56	A	3	20081106													
	W:	ΑE,	AG,	AL,	AM,	AO,	ΑT,	ΑU,	AZ,	BA,	BB,	BG,	BH,	BR,	BW,	BY,	BZ,		
		CA,	CH,	CN,	CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DO,	DZ,	EC,	EE,	EG,	ES,		
		FΙ,	GB,	GD,	GE,	GH,	GM,	GT,	HN,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	ΚE,		
		KG,	KM,	KN,	ΚP,	KR,	KΖ,	LA,	LC,	LK,	LR,	LS,	LT,	LU,	LY,	MA,	MD,		
	ME, MG,			MK,	MN,	MW,	MX,	MY,	MZ,	NA,	NG,	NI,	NO,	NZ,	OM,	PG,	PH,		
		PL,	PT,	RO,	RS,	RU,	SC,	SD,	SE,	SG,	SK,	SL,	SM,	SV,	SY,	ТJ,	TM,		
		TN,	TR,	TT,	TZ,	UA,	UG,	US,	UZ,	VC,	VN,	ZA,	ZM,	ZW					
	RW:	ΑT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,	EE,	ES,	FΙ,	FR,	GB,	GR,	HR,	HU,		
		IE,	IS,	IT,	LT,	LU,	LV,	MC,	MT,	NL,	NO,	PL,	PT,	RO,	SE,	SI,	SK,		
		TR,	BF,	ВJ,	CF,	CG,	CI,	CM,	GA,	GN,	GQ,	GW,	ML,	MR,	NE,	SN,	TD,		
		TG,	BW,	GH,	GM,	KE,	LS,	MW,	MZ,	NA,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,		
		AM,	AZ,	BY,	KG,	KΖ,	MD,	RU,	ТJ,	TM,	AP,	EA,	EP,	OA					
PRIORIT GI	Y APPLN. INFO.:								Ū	S 20	07-9	0104	5P	2007	0213				

AB The invention provides a class of biaryl compds. of formula I as inhibitors of $\alpha 2C$ adrenergic receptor agonists, methods of preparing such compds., pharmaceutical compns. containing one or more such compds., methods of preparing pharmaceutical formulations comprising one or more such compds., and methods of treatment, prevention, inhibition, or amelioration of one or more conditions associated with the $\alpha 2C$ adrenergic receptors

using such compds. or pharmaceutical compns. Compds. of formula I wherein J1, J2 and J3 is N, NO and CR2; J4 is (un)substituted alkylidene, (un) substituted alkenylmethylene, (un) substituted alkyl, etc.; J5 is CR6', NR6', O and S; R1 is (un) substituted cycloalkyl, (un) substituted cycloalkenyl, (un) substituted (hetero) aryl, etc.; R2 is H, OH, halo, CN, NO2, alkyl, alkoxy, etc.; R3 is H, halo, =0, alkyl, alkoxy, alkenyl, etc.; R6' is H, alkyl, alkoxy, alkenyl, alkynyl, etc.; X is C1-3 alkyl, and C1-3 alkenyl; m is 0, 1, 2, 3, 4, and 5; and their pharmaceutically acceptable salts, esters, solvates and prodrugs thereof, are claimed. Example compound II was prepared by Suzuki cross-coupling reaction of N-Boc-6-bromoindoline with pyrimidine-5-boronic acid the resulting N-Boc-6-(pyrimidin-5-yl)indoline underwent deprotection to give 6-(pyrimidin-5-yl)indoline, which underwent reductive alkylation with imidazole-4-carboxaldehyde to give compound II. All the invention compds. were evaluated for their $\alpha 2C$ adrenoreceptor agonistic activity (some data given).

MSTR 1A

G1 = 8-2 9-7 8-4

G3—G4

G2 = CH (opt. substd.) $G3 = 103-2 \ 102-4 \ 104-9$

103 104

G11 = isoquinolinyl

Patent location: claim 1

Note: or pharmaceutically acceptable salts, esters,

solvates or prodrugs

Note: substitution is restricted

Note: additional substitution and ring formation also

claimed

L5 ANSWER 2 OF 29 MARPAT COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 148:578981 MARPAT

TITLE: Soil- or seed-treating agents comprising quinoline

compounds and salts thereof and plant disease control

with quinolines

INVENTOR(S): Ito, Hiroyuki; Tamagawa, Yasushi; Tanaka, Harukazu;

Ohara, Toshiaki

PATENT ASSIGNEE(S): Sankyo Agro Company, Limited, Japan

SOURCE: PCT Int. Appl., 70pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

F	PATENT		KI	ND									DATE					
_ ∿	 vo 2008	 0661	 48	 A	 1	2008					 07-j:			20071130				
	W:	ΑE,	AG,	AL,	AM,	ΑT,	ΑU,	ΑZ,	BA,	BB,	BG,	BH,	BR,	BW,	BY,	BZ,	CA,	
		CH,	CN,	CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DO,	DZ,	EC,	EE,	EG,	ES,	FI,	
		GB,	GD,	GE,	GH,	GM,	GT,	HN,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	KE,	KG,	
		KM,	KN,	ΚP,	KR,	KΖ,	LA,	LC,	LK,	LR,	LS,	LT,	LU,	LY,	MA,	MD,	ME,	
		MG,	MK,	MN,	MW,	MX,	MY,	MZ,	NA,	NG,	ΝI,	NO,	NΖ,	OM,	PG,	PH,	PL,	
		PT,	RO,	RS,	RU,	SC,	SD,	SE,	SG,	SK,	SL,	SM,	SV,	SY,	ΤJ,	TM,	TN,	
		TR,	TT,	TZ,	UA,	UG,	US,	UΖ,	VC,	VN,	ZA,	ZM,	ZW					
	RW:	ΑT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,	EE,	ES,	FI,	FR,	GB,	GR,	HU,	ΙE,	
		IS,	ΙΤ,	LT,	LU,	LV,	MC,	MT,	NL,	PL,	PT,	RO,	SE,	SI,	SK,	TR,	BF,	
		ВJ,	CF,	CG,	CI,	CM,	GΑ,	GN,	GQ,	GW,	ML,	MR,	ΝE,	SN,	TD,	TG,	BW,	
		GH,	GM,	ΚE,	LS,	MW,	MZ,	NA,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	AM,	ΑZ,	
		BY,	KG,	KΖ,	MD,	RU,	ΤJ,	TM										
P	AU 2007	3264	12	Α	1	2008	0605		A	U 20	07-3	2641.	2	2007	1130			
I	IN 2009KN02411 A						0717		I	N 20	09-K	N241	1	2009	0629			
PRIORI	RIORITY APPLN. INFO.:								J:	P 20	06-3	2534	4	2006	1201			
									M	O 20	07-J	P731	43	2007	1130			
GI																		

$$R^3$$
 R^4 X_n X_n

AB Soil- or seed-treating agents with an excellent controlling effect against various plant pathogens (particularly, Pyricularia oryzae) comprise ≥ 1 quinoline (I, e.g., where R1, R2 = (un)substituted alkyl, (hetero)aryl, etc.; R3, R4 = H, (un)substituted alkyl, halo, alkoxy, etc.; X = halo, (un)substituted alkyl, etc.; Y = halo, OH, etc.; n = 0-4; m = 0-6) or a salt thereof. Thus, when rice plants which had been sprayed with a Pyricularia oryzae spore suspension were grown on soil treated with 400 g/10 are of I (R1, R2 = Me; R3, R4 = H; Xn = 5-F; Ym = H), rice blast disease development was not observed 7 days after inoculation.

MSTR 1

 $G1 = 60-17 \ 19-20 \ 60-2$

G2 = 22



G11 = 30



Patent location: claim 1 Note: or salts

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 3 OF 29 MARPAT COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 148:517739 MARPAT

TITLE: Preparation of triazolopyridazine protein kinase

modulators

INVENTOR(S): Smith, Christopher Ronald; Bounaud, Pierre-Yves;

Jefferson, Elizabeth Anne; Lee, Patrick S.; Torres,

Eduardo

PATENT ASSIGNEE(S): SGX Pharmaceuticals, Inc., USA

SOURCE: PCT Int. Appl., 284pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2 PATENT INFORMATION:

	PATENT NO.			KI	KIND DATE				A	PPLI	CATI	ON N	ο.	DATE				
					A2 20080502 A3 20080710				M	0 20	07-U	S818	32	20071018				
		W:					AT,		AZ,	BA,	BB,	ВG,	BH,	BR,	BW,	BY,	BZ,	CA,
			CH,	CN,	CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DO,	DZ,	EC,	EE,	EG,	ES,	FI,
			GB,	GD,	GE,	GH,	GM,	GT,	HN,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	ΚE,	KG,
			ΚM,	KN,	KP,	KR,	KΖ,	LA,	LC,	LK,	LR,	LS,	LT,	LU,	LY,	MA,	MD,	ME,
			MG,	MK,	MN,	MW,	MX,	MY,	MZ,	NA,	NG,	NΙ,	NO,	NΖ,	OM,	PG,	PH,	PL,
			PT,	RO,	RS,	RU,	SC,	SD,	SE,	SG,	SK,	SL,	SM,	SV,	SY,	ΤJ,	TM,	TN,
							UG,											
		RW:	ΑT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,	EE,	ES,	FΙ,	FR,	GB,	GR,	HU,	IE,
			•	•	•	,	LV,	•		•	•	•	•	•		•		BF,
							CM,								•		•	BW,
			•	•	•		MW,		•	•	•		•	UG,	ZM,	ZW,	ΑM,	AΖ,
			•	•	•	•	RU,	•		•	•	•						
	-	2007		-			2008			A	-	-			2007	-		
	KR	2009	0693	03	A		2009	0630		K	R 20	09-7	0798	6	2009	0417		
	ΙN	20091	0 0 MM	857	A		2009	0703		I	N 20	09-M	И857		2009	0501		
PRIOR	PRIORITY APPLN. INFO.:									U	S 20	06-8	6255	2P	2006	1023		
										U	S 20	06-8	7138	4P	2006	1221		
									US 2007-913752P 20070424									
										U	S 20	07-9	5283	3P	2007	0730		
										W	0 20	07-U	S818	32	2007	1018		

GΙ

$$\begin{bmatrix} & & & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & \\ & & & \\ & & & \\ & & & \\ & & \\ & & & \\ & & & \\ & & \\ & & & \\ &$$

AB The title compds. I [A = (un)substituted (hetero)aryl; Q = H, halo, amino, alkyl, etc.; T = CH2, CH(halo), C(halo)2, CH(alkyl), C(alkyl)2; X = N or

CR2; R1, R2 = H, halo, nitro, cyano, etc.; or R1 and R2 form (un)substituted (hetero)cycloalkyl or (hetero)aryl; R31, R32 = H, halo, nitro, cyano, etc.; R4 = a bond, H, halo, nitro, etc.; z = 0-3], useful for treating diseases mediated by kinase activity, were prepared. Thus, Pd-catalyzed coupling of (R,S)-6-[1-(6-chloro-[1,2,4]triazolo[4,3-b]pyridazin-3-yl)ethyl]quinoline with 3-cyanophenylboronic acid afforded 59% II which showed IC50 of \leq 100 nM against c-Met kinase. Pharmaceutical composition comprising the compound I is disclosed.

MSTR 1

G1 = isoquinolinyl

Patent location: claim 1

Note: or pharmaceutically acceptable salts or solvates

Note: also incorporates claims 23, 25 and 27

Note: substitution is restricted

Stereochemistry: or enantiomers, diastereomers or racemates

L5 ANSWER 4 OF 29 MARPAT COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 147:462227 MARPAT

TITLE: Medical fungicides containing 3-[(di- or

tetrahydro)isoquinolin-1-yl]quinolines

INVENTOR(S): Ito, Hiroyuki; Tamagawa, Yasushi PATENT ASSIGNEE(S): Sankyo Agro Co., Ltd., Japan SOURCE: Jpn. Kokai Tokkyo Koho, 54pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE

JP 2007269686 A 20071018 JP 2006-96830 20060331
PRIORITY APPLN. INFO.: JP 2006-96830 20060331
GI

$$R^3$$
 R^2
 R^3
 R^2
 R^3
 R^4
 R^3
 R^2
 R^3
 R^4
 R^3
 R^2
 R^3
 R^4
 R^5
 R^5

$$R^3$$
 R^4
 R^2
 R^1
 R^2
 R^3
 R^4
 R^2
 R^3
 R^2
 R^3
 R^2
 R^3
 R^3

AB Medical fungicides contain title compds. I, II [R1, R2 = (un)substituted C1-6 alkyl, (un)substituted (hetero)aryl, (un)substituted aralkyl; R1CR2 may be linked to form (un)substituted C3-10 cycloalkyl; R3, R4 = H, (un)substituted C1-6 alkyl, halo, C1-6 alkoxy, OH; R3R4 may be linked to form C1-6 alkylidene; R3CR4 may be keto, (un)substituted C3-10 cycloalkyl; R5 = none, H, acyl, (un)substituted C1-6 alkyl, O; X = halo, (un)substituted C1-6 alkyl, (un)substituted C2-6 alkenyl, (un)substituted (hetero)aryl, etc.; Y = halo, C1-6 alkyl, C1-6 alkoxy, OH; n = 0-4; m = 0-6; the doted line may be double bond], or their salts as active ingredients. Thus, I (R1 = R2 = Me, R3 = R4 = Ym = H, R5 = none, Xn = 5-F; the doted line is double bond) at 100 ppm showed ≥80% antifungal activity against Candida glabrata, Cryptococcus neoformans, and Aspergillus fumigatus, and at 10 ppm against Trichophyton mentagrophytes, T. rubrum, and Microsporum gypseum.

MSTR 1

 $G1 = 60-17 \ 19-20 \ 60-2$

G2 = 22



G11 = 30



Patent location: claim 1 Note: or salts

L5 ANSWER 5 OF 29 MARPAT COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 146:358717 MARPAT

TITLE: Preparation of cyanophenylethyl quinolinecarboxamides

as neurokinin-3 (NK-3) receptor ligands.

INVENTOR(S): Albert, Jeffrey S.; Alhambra, Cristobal; Kang, James;

Koether, Gerard M.; Simpson, Thomas R.; Woods, James;

Li, Yan

PATENT ASSIGNEE(S): Astrazeneca AB, Swed.

SOURCE: PCT Int. Appl., 39pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PAT	TENT	NO.		KI	ND	DATE			A	PPLI	CATI	и ис	Э.	DATE			
WO	2007	0351	 57	 A	1	2007	0329		W	0 20	 06-s:	E106	 7	2006	0919		
	W:	ΑE,	AG,	AL,	ΑM,	ΑT,	ΑU,	ΑZ,	BA,	BB,	BG,	BR,	BW,	BY,	BZ,	CA,	CH,
		CN,	CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	EG,	ES,	FI,	GB,	GD,
		GE,	GH,	GM,	HN,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	KE,	KG,	KM,	KN,	KP,
		KR,	KΖ,	LA,	LC,	LK,	LR,	LS,	LT,	LU,	LV,	LY,	MA,	MD,	MG,	MK,	MN,
		MW,	MX,	MY,	MZ,	NA,	NG,	NI,	NO,	NZ,	OM,	PG,	PH,	PL,	PT,	RO,	RS,
		RU,	SC,	SD,	SE,	SG,	SK,	SL,	SM,	SV,	SY,	ΤJ,	TM,	TN,	TR,	TT,	TZ,
		UA,	UG,	US,	UΖ,	VC,	VN,	ZA,	ZM,	ZW							
	RW:	ΑT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,	EE,	ES,	FΙ,	FR,	GB,	GR,	HU,	IE,
		IS,	ΙT,	LT,	LU,	LV,	MC,	NL,	PL,	PT,	RO,	SE,	SI,	SK,	TR,	BF,	ВJ,
		CF,	CG,	CI,	CM,	GΑ,	GN,	GQ,	GW,	ML,	MR,	ΝE,	SN,	TD,	ΤG,	BW,	GH,
		GM,	ΚE,	LS,	MW,	MZ,	NA,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	AM,	AΖ,	BY,
		KG,	KΖ,	MD,	RU,	ТJ,	TM										
EP	1928	834		A	1	2008	0611		E	P 20	06-7	8418	8	2006	0919		

R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR JP 2009508945 JP 2008-532189 20090305 20060919 Τ IN 2008DN02404 Α 20080725 IN 2008-DN2404 20080320 CN 101268053 Α 20080917 CN 2006-80035003 20080321 US 20080306110 US 2008-67566 Α1 20081211 20080408 PRIORITY APPLN. INFO.: US 2005-719286P 20050921 WO 2006-SE1067 20060919

OTHER SOURCE(S): CASREACT 146:358717

$$R^{1}$$
 $A(R^{2})_{n}$ O NH R^{4} R^{3} M M

AB Title compds. [I; R1 = CH2CN; A = Ph, cycloalkyl; R2 = H, OH, NH2, cyano, halo, (substituted) alkyl cycloalkyl, alkoxy, alkoxyalkyl; R3 = R2, NO2; m, n, q = 1-3; R4 = H, OH, OSO2R6, (substituted) alkyl, alkoxy, alkoxyalkyl, etc.; R5 = H, OH, cyano, halo, OR6, SR6, SOR6, SO2R6; R6 = H, (substituted) alkyl, alkenyl, alkynyl, carbocyclyl], were prepared for treatment of depression, anxiety, schizophrenia, obesity, inflammatory bowel disorder, etc. (no data). Thus, 3-hydroxy-2-phenylquinoline-4-carboxylic acid, Et3N, and SOC12 were stirred together in EtOAc for 45 min.; (S)-3-amino-3-phenylpropionitrile (preparation given) was added followed by stirring for 3 h at 40° to give (S)-2-cyano-1-phenylethyl 3-hydroxy-2-phenylquinoline-4-carboxamide.

Ι

MSTR 1

G4 = 51

G12—G13

= (0-5) CH2 G13 = isoquinolinyl

Patent location: claim 1

Note: or in vivo hydrolysable precursors, pharmaceutically acceptable salts or stereoisomers or enantiomers Stereochemistry:

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 6 OF 29 MARPAT COPYRIGHT 2009 ACS on STN

146:163036 MARPAT ACCESSION NUMBER:

TITLE: Preparation of 3-(isoquinolin-1-yl)quinoline derivatives as agrochemical and horticultural

fungicides

INVENTOR(S): Ito, Hiroyuki; Komai, Hiroyuki; Fujiwara, Kota;

Tanaka, Harukazu; Tamagawa, Yasushi; Kajino, Fumie

PATENT ASSIGNEE(S): Sankyo Agro Company, Limited, Japan

SOURCE: PCT Int. Appl., 114pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PAT	ENT	NO.		KI	ND	DATE			Al	PPLI	CATI	и ис	٥.	DATE			
WO	2007	 0110	 22	 A	 1	20070)125		M(20	 06-J:	 P314	 478	2006	0721		
	W:	ΑE,	AG,	AL,	ΑM,	ΑT,	ΑU,	ΑZ,	BA,	BB,	BG,	BR,	BW,	BY,	BZ,	CA,	СН
		CN,	CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	EG,	ES,	FΙ,	GB,	GD
		GE,	GH,	GM,	HN,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	ΚE,	KG,	KM,	KN,	KP
		KR,	KΖ,	LA,	LC,	LK,	LR,	LS,	LT,	LU,	LV,	LY,	MA,	MD,	MG,	MK,	MN
		MW,	MX,	MZ,	NA,	NG,	NΙ,	NO,	NZ,	OM,	PG,	PH,	PL,	PT,	RO,	RS,	RU
		SC,	SD,	SE,	SG,	SK,	SL,	SM,	SY,	ΤJ,	TM,	TN,	TR,	TT,	TZ,	UA,	UG,
		US,	UZ,	VC,	VN,	ZA,	ZM,	ZW									
	RW:	ΑT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,	EE,	ES,	FΙ,	FR,	GB,	GR,	HU,	ΙE,
		IS,	ΙΤ,	LT,	LU,	LV,	MC,	NL,	PL,	PT,	RO,	SE,	SI,	SK,	TR,	BF,	BJ
		CF,	CG,	CI,	CM,	GΑ,	GN,	GQ,	GW,	ML,	MR,	ΝE,	SN,	TD,	ΤG,	BW,	GH,
		GM,	ΚE,	LS,	MW,	MΖ,	NA,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	AM,	ΑZ,	BY,
		KG,	KΖ,	MD,	RU,	ТJ,	TM										
RITY	APP	LN.	INFO	.:					J1	20	05-2	1232	4	2005	0722		

PF

GI

The title compds. (I) [the ring A, B = each (un)substituted benzene ring, AΒ C3-8 cycloalkyl ring optionally unsatd., or 5- or 6-membered heteroaryl ring containing 1-4 heteroatoms selected from O, N and S; R1-R4 = H, halogen, HO, acyloxy, acylthio, cyano, each (un)substituted C1-6 alkyl, C1-6 alkoxy, C1-6 alkylthio, C1-6 alkylsulfinyl, C1-6 alkylsulfonyl, C3-6 cycloalkyl, C3-6 cycloalkyloxy, C3-6 cycloalkylthio, C2-6 alkenyl, C2-6 alkenyloxy, C2-6 alkenylthio, C2-6 alkynyl, C2-6 alkynyloxy, C2-6 alkynylthio, aryl, arylthio, heteroaryl, heteroarylthio, aralkyl, aralkyloxy, or aralkylthio; or at least 2 of R1-R4 together form (un) substituted C3-8 cycloalkyl ring optionally containing 1-3 heteroatoms selected from O, N, and S; or (R3 and R4) or (R3 and R4) together represent oxo; (R1 and R2) or (R3 and R4) together represent CH2; or (R1 and R3 or R4) or (R2 and R3 or R4) together represent a single bond; Q =N, (un) substituted NH; when n = an integer of 2-4, X = group A, O-(un)substituted N-hydroxy-C1-6 alkanimidoyl; when m = an integer of 2-6, Y = group A, HO; group A = halo, each (un)substituted C1-6 alkyl, C3-6 cycloalkyl, C2-6 alkenyl, C2-6 alkynyl, aryl, heteroaryl, C1-6 alkylthio, C1-6 alkylsulfinyl, C1-6 alkylsulfonyl, or NH2, acyl, cyano; n = an integer of 0-4; m = an integer of 0-6] or salts thereof are prepared. These compds. show an excellent effect on a variety of plant pathogens, particularly for rice blast (Pyricularia oryzae), without causing damage to a host plant. Thus, 230 mg 2-chloroquinoline-3-carbonitrile and 350 mg 3-(2-fluorophenyl)-2,3-dimethylbutan-2-ol were added to 1.0 mL H2SO4 and stirred at room temperature for 1 h. The reaction mixture was poured into H2O

and

 $\,$ made alkaline by adding aqueous NH3 solution and extracted with EtOAc to give, after

purification by TLC, 9% 2-chloro-3-(5-fluoro-3,3,4,4-tetramethyl-3,4-dihydroisoquinolin-1-yl)quinoline (II). II and 3-(5-fluoro-3,4-dihydroisoquinolin-1-yl)quinoline at 300 ppm completely controlled Botrytis cinerea on tomato seedlings and Pyricularia oryzae on rice seedlings, resp.

MSTR 1

G11 = o-C6H4 (opt. substd. by 1 or more G26)

 $G12 = 2-148 \ 1-5$

G13 G13

G13 = 36



Patent location: claim 1 Note: or salts

Note: substitution is restricted

Note: additional ring formation also claimed

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 7 OF 29 MARPAT COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 146:45396 MARPAT

TITLE: Preparation of bis-hetero/aryls, particularly

bis-indoles, for treatment of protein folding

disorders

INVENTOR(S): Carter, Michael D.; Hadden, Mark; Weaver, Donald F.;

Jacobo, Sheila Marie H.; Lu, Erhu

PATENT ASSIGNEE(S): Queen's University At Kingston, Can.

SOURCE: PCT Int. Appl., 251pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE WO 2006125324 A1 20061130 WO 2006-CA878 20060529

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     AU 2006251832
                     A1
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                                                             20071126
                                           US 2005-685369P
PRIORITY APPLN. INFO.:
                                                            20050527
                                           US 2005-685609P
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                                           US 2005-685610P
                                                            20050527
                                           US 2005-709474P
                                                            20050819
                                           US 2005-719615P
                                                            20050922
                                           US 2006-788519P 20060331
                                           WO 2006-CA878
                                                             20060529
     The invention is related to a method for treating a protein folding
AB
     disorder such as Alzheimer's disease, dementia, Parkinson's disease,
     Huntington's disease and prion-based spongiform encephalopathy by
     administering to a subject a compound of formula A(CR1R2)nB [I; A, B =
     independently a mono- or bicyclic hetero/aryl group optionally substituted
     with 1-4 substituents; n = 0-1; when n = 1, R1, R2 = independently H,
     cyclo/alkyl, alkoxy, hydroxy, halo, aryl], its analog or its
     pharmaceutically acceptable salt, particularly a bis-indole.
     invention is also related to the use of I as protein aggregation
     inhibitors. Thus, reacting 5-bromoisatin with 5-bromoindole, followed by
     reduction, and treatment of the bis-indole with NaOMe/MeOH in DMF in presence
     of CuI gave 5-methoxy-3-(5-methoxyindol-3-yl)indole. In a \beta-amyloid
     (A\beta) thioflavin T (ThT) aggregation fluorescence assay, selected
     biaryls I inhibited the aggregation of A\beta 1-40 and A\beta 1-42. In
     fluorescence assays, I inhibited the aggregation of tau441 and
     \alpha-synuclein protein.
 MSTR 1
      = isoquinolinyl
       = quinolinyl
Patent location:
                            claim 1
Note:
                            or pharmaceutically acceptable salts
Note:
                            also incorporates claim 65
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REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 8 OF 29 MARPAT COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 145:314837 MARPAT TITLE: Preparation of

freparation of 6-heteroaryl-1.2.3.4.4a.1

6-heteroaryl-1,2,3,4,4a,10b-hexahydrophenanthridines as PDE-4 inhibitors for the treatment of respiratory

disorders

INVENTOR(S): Kautz, Ulrich; Schmidt, Beate; Flockerzi, Dieter;

Chiesa, Maria Vittoria; Hatzelmann, Armin; Zitt, Christof; Wohlsen, Andrea; Marx, Degenhard; Kley,

Hans-Peter

PATENT ASSIGNEE(S): Altana Pharma A.-G, Germany

SOURCE: PCT Int. Appl., 57pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

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APPLICATION NO. DATE
    PATENT NO. KIND DATE
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                                    WO 2006-EP60370 20060301
        006092417 A1 20060908 WO 2006-EP60370 20060301
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    AU 2006219862
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    JP 2008531654
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PRIORITY APPLN. INFO.:
                                         EP 2005-101589 20050302
                                         WO 2006-EP60370 20060301
OTHER SOURCE(S): CASREACT 145:314837
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GΙ

6-Heteroaryl-1,2,3,4,4a,10b-hexahydrophenanthridines (shown as I; AΒ variables defined below; e.g. (4aR*,10bR*)-9-(2,2-difluoroethoxy)-6-(2-difluoroethoxy)methylsulfanylpyrimidin-5-yl)-8-methoxy-1,2,3,4,4a,10bhexahydrophenanthridine (1)) are novel effective PDE4 inhibitors (no data) useful against respiratory (airway) disorders (no data). For I: either R1 is hydroxy, 1-4C-alkoxy, 3-7C-cycloalkoxy, 3-7C-cycloalkylmethoxy, or completely or predominantly F-substituted 1-4C-alkoxy, and R2 is 2,2-difluoroethoxy; or R1 is 2,2-difluoroethoxy, and R2 is hydroxy, 1-4C-alkoxy, 3-7C-cycloalkoxy, 3-7C-cycloalkylmethoxy, or completely or predominantly F-substituted 1-4C-alkoxy; and R3 is H or 1-4C-alkyl, R31 is H or 1-4C-alkyl, or in which R3 and R31 together are a 1-4C-alkylene group; R4 is H or 1-4C-alkyl; R5 is H; R51 is H, or R5 and R51 together = addnl. bond. Har is (un) substituted by R6 and/or R7 and/or R8, and is a 5- to 10-membered monocyclic or fused bicyclic unsatd. or partially saturated heteroaryl radical comprising 1 to 4 heteroatoms = O, N and S; R6 is halogen, 1-4C-alkyl, 1-4C-alkoxy, 1-4C-alkoxy-2-4C-alkoxy, 1-4C-alkylthio, mercapto, cyano, 1-4C-alkoxycarbonyl, carboxy, hydroxy, oxo, -AN(R61)R62, pyridyl, or completely or partially F-substituted 1-4C-alkyl, in which A is a bond or 1-4C-alkylene, R61 is H or 1-4C-alkyl, R62 is H or 1-4C-alkyl, or R61 and R62 together and with inclusion of the N atom, to which they are attached, form a heterocyclic ring; R7 = 1-4C-alkyl, 1-4C-alkoxy, 1-4C-alkoxy-2-4C-alkoxy, 1-4C-alkylthio, mercapto, hydroxy, oxo, amino or mono- or di-1-4C-alkylamino; and R8 is halogen, 1-4C-alkyl or 1-4C-alkoxy. Although the methods of preparation are not claimed, prepns. and/or characterization data for 5 examples of I are included. example, 1 was prepared (31% over 2 steps) by cyclization of $[(1R^*, 2R^*)-2-[3-(2, 2-difluoroethoxy)-4-methoxyphenyl]$ cyclohexyl]amine with 2-methylsulfanylpyrimidine-5-carboxylic acid using 1-ethyl-3-(3-dimethylaminopropyl)carbodiimide hydrochloride and PC15; preparation of the cyclohexylamine required 6 steps starting from isovanillin and 2-bromo-1,1-difluoroethane.

MSTR 1

G2 G1 G4 G6 G6 G7 G8

G8 = quinolinyl

Patent location: claim 1

Note: substitution is restricted

Note: additional oxo substitution also claimed

Note: and salts, N-oxides, and salts of the N-oxides

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 9 OF 29 MARPAT COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 145:314823 MARPAT

TITLE: Preparation of 3-(2-naphthyl)pyridines and related

compounds as human corticoid synthases CYP11B1 and

CYP11B2 inhibitors

INVENTOR(S): Hartmann, Rolf W.; Voets, Marieke; Mueller-Vieira,

Ursula

PATENT ASSIGNEE(S): Universitaet des Saarlandes, Germany

SOURCE: PCT Int. Appl., 92pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: German

FAMILY ACC. NUM. COUNT: 2

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		GM,	KΕ,	LS,	MW,	${ m MZ}$,	NA,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	AM,	ΑZ,	BY,
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EP	1853	261		А	1	2007	1114		E.	P 20	06-7	0861	1	2006	0302		
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DE 2005-10200502937220050624 WO 2006-EP60410 20060302

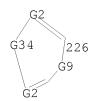
GΙ

AB Title compds. I [Z = [C]n; n = 0-2; Y = 0, S, NR10, etc.; T, U, V, W, X = C, N; R1, R2 = H, halo, CN, etc.; R3 = monocyclic or bicyclic heteroaryl ring with provisos; R4, R5, R6, R7, R8 = H, halo, CN, etc.; R10 = H, alkyl, alkylcarbonyl, etc.] and their pharmaceutically acceptable salts were prepared For example, claimed naphthylpyridine II was prepared from 6-bromo-2-methoxynaphthalenein 2-steps. In human CYP11B2 inhibition assays, 46-examples of compds. I at 500 nM exhibited 16-97% inhibition.

MSTR 1

G1---G21

G1 = 226



G2 = N / CHG9 = (0-1) CH2

G21 = isoquinolinyl

G34 = o-C6H4

Patent location: claim 1

Note: also incorporates claim 14
Note: substitution is restricted

Note: or pharmaceutically acceptable salts and isomers

Note: additional substitution also claimed

REFERENCE COUNT: 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 10 OF 29 MARPAT COPYRIGHT 2009 ACS on STN

10/587100

ACCESSION NUMBER: 145:314821 MARPAT

Preparation of 3-(2-naphthyl)pyridines and related TITLE:

compounds as human corticoid synthases CYP11B1 and

CYP11B2 inhibitors

Hartmann, Rolf W.; Voets, Marieke; Mueller-Vieira, INVENTOR(S):

Ursula

PATENT ASSIGNEE(S): Universitaet des Saarlandes, Germany

SOURCE: Ger. Offen., 50pp.

CODEN: GWXXBX

DOCUMENT TYPE: Patent LANGUAGE: German

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

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GI

Title compds. I [Z = [C]n; n = 0-2; Y = 0, S, NR10, etc.; T, U, V, W, X = 0]C, N; R1, R2 = H, halo, CN, etc.; R3 = monocyclic or bicyclic heteroaryl ring with provisos; R4, R5, R6, R7, R8 = H, halo, CN, etc.; R10 = H, alkyl, alkylcarbonyl, etc.] and their pharmaceutically acceptable salts were prepared For example, claimed naphthylpyridine II was prepared from 6-bromo-2-methoxynaphthalenein 2-steps. In human CYP11B2 inhibition assays, 46-examples of compds. I at 500 nM exhibited 16-97% inhibition.

MSTR 1

G1---G21

G1 = 226



G2 = N / CH G9 = (0-1) CH2 G21 = isoquinolinyl

G34 = o-C6H4

Patent location: claim 1

Note: also incorporates claim 14 Note: substitution is restricted

Note: or pharmaceutically acceptable salts and isomers

Note: additional substitution also claimed

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 11 OF 29 MARPAT COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 145:293082 MARPAT

TITLE: Preparation of pyrazolyl substituted xanthines as

antagonists of A2B receptors

INVENTOR(S): Wang, Guoquan; Rieger, Jayson M.; Thompson, Robert D.

PATENT ASSIGNEE(S): Adenosine Therapeutics, LLC, USA

SOURCE: PCT Int. Appl., 70pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT NO.		KII	ND	DATE			A.	PPLI	CATI	и ис	Ο.	DATE			
WO 20060918		A:		2006	–		M	O 20	06-U	S674	6	2006	0227		
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US 20070249598 A1 20071025 US 2006-362392 20060227

PRIORITY APPLN. INFO:: US 2005-656086P 20050225

OTHER SOURCE(S): CASREACT 145:293082
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AB Title compds. represented by the formula I [wherein R = H, (halo)alkyl, cycloalkyl, etc.; R1, R2 = independently H, (cyclo)alkyl, alkenyl, etc.; L1 = (un)substituted C, N, O, S or P, with proviso; Z = (un)substituted heteroaryl; Z1 = (un)substituted (hetero)aryl; n = 0-2; and pharmaceutically acceptable salts thereof] were prepared as A2B adenosine receptor (ARs) antagonists (no data). For example, cyclization of 6-chloronicotinoyl chloride with 5,6-diamino-1,3-dipropyluracil, and followed by reaction with hydrazine in EtOH, gave 1,3-dipropyl-8-(6-hydrazino-3-pyridyl)xanthine. I were tested for affinity with A2B receptors in HEK-293 cells. Thus, I and their pharmaceutical compns. are useful as A2B adenosine receptors antagonists for the treatment of A2B receptors mediated diseases, such as asthma, allergy immune disease, and etc.

MSTR 1B

19¹⁹—G¹⁰

G10 = quinolinylG19 = 939-8 936-20



Patent location: claim 1

Note: also incorporates claim 80

Note: or pharmaceutically acceptable salts

Note: substitution is restricted

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 12 OF 29 MARPAT COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 143:306329 MARPAT TITLE: Preparation of

2-pyridinyl[7-(substituted-pyridin-4-yl)pyrazolo[1,5-

a]pyrimidin-3-yl]methanones as GABA receptor

modulators for treating neurological and psychiatric

diseases

INVENTOR(S): Skolnick, Phil

PATENT ASSIGNEE(S): Dov Pharmaceutical, Inc., USA

SOURCE: PCT Int. Appl., 63 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PAT	rent 	NO.		KII	MD.	DATE			A.	PPLI	CATI	ON N	0.	DATE			
WO	2005	0844	 39	A	1	2005	0915		M	20	 05-U	 S723	8	2005	0302		
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		CN,	CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	EG,	ES,	FI,	GB,	GD,
		GE,	GH,	GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	KΕ,	KG,	KP,	KR,	KΖ,	LC,
		LK,	LR,	LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NA,	NΙ,
		NO,	NΖ,	OM,	PG,	PH,	PL,	PT,	RO,	RU,	SC,	SD,	SE,	SG,	SK,	SL,	SM,
		SY,	ΤJ,	TM,	TN,	TR,	TT,	TZ,	UA,	UG,	UZ,	VC,	VN,	YU,	ZA,	ZM,	ZW
	RW:	BW,	GH,	GM,	ΚE,	LS,	MW,	${ m MZ}$,	NA,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	ΑM,
		ΑZ,	BY,	KG,	KΖ,	MD,	RU,	ТJ,	TM,	ΑT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,
		EE,	ES,	FI,	FR,	GB,	GR,	HU,	IE,	IS,	IT,	LT,	LU,	MC,	NL,	PL,	PT,
		RO,	SE,	SI,	SK,	TR,	BF,	ΒJ,	CF,	CG,	CI,	CM,	GΑ,	GN,	GQ,	GW,	ML,
		MR,	ΝE,	SN,	TD,	ΤG											
US	2005	0277	639	A.	1	2005	1215		U	S 20	05-7	0394		2005	0301		
	2005								A)	U 20	05-2	1864	1	2005	0302		
CA	2559	295		A.	1	2005	0915		C.	A 20	05-2	5592	95	2005	0302		
EΡ	1725	101		A.	1	2006	1129		E:	P 20	05-7	3368	5	2005	0302		
	R:	ΑT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,	EE,	ES,	FΙ,	FR,	GB,	GR,	HU,	ΙE,
		IS,	ΙΤ,	LI,	LT,	LU,	MC,	NL,	PL,	PT,	RO,	SE,	SI,	SK,	TR		
	2005									R 20	05-8	124		2005	0302		
JΡ	2007	5263	34	Τ		2007	0913		J.	P 20	07-5	0205	6	2005	0302		
ZA	2006	0077	96	А		2008	0130		\mathbb{Z}_{2}	A 20	06-7	796		2005	0302		
MX	2006	0099	74	А		2006	1208		M.	X 20	06-9	974		2006	0904		

IN 2006D	105103	A	20070622	IN	2006-DN5103	20060904
NO 20060	04440	A	20061030	NO	2006-4440	20060929
KR 20061	35017	A	20061228	KR	2006-720714	20061002
PRIORITY APPL	1. INFO.:			US	2004-549418P	20040302
				US	2005-70394	20050301
				WO	2005-US7238	20050302

Ι

OTHER SOURCE(S): CASREACT 143:306329

GT

$$\begin{bmatrix} N \\ N \end{bmatrix}_{D}$$

AΒ Title compds. I [n = 1-4; each R = independently halo, OH, alkyl, alkoxy,NO2, NH2, alkanoyl, alkyl, etc.] were prepared as γ -aminobutyric acid (GABA) receptor modulators useful in the treatment of neurol. and psychiatric diseases. Thus, reacting 3-dimethylamino-1-(2-fluoro-4-pyridyl)-2-propen-1-one (preparation given) with (3-amino-1H-pyrazol-4-yl) (pyridin-2-yl) methanone gave pyrazolopyrimidine II in 86% yield. In a radioligand assay, selected I exhibited good affinity for the GABAA receptor, as demonstrated by their ability to inhibit [3H]Ro 15-1788 binding to the receptor with an IC50 < 10 μ M. and their compns. are useful for preventing and treating stroke, head trauma, epilepsy, pain, migraine, mood disorders, anxiety, post traumatic stress disorder, obsessive compulsive disorders, mania, bipolar disorders, schizophrenia, seizures, convulsions, tinnitus, neurodegenerative disorders including Alzheimer's disease, amyotrophic lateral sclerosis and Parkinson's disease, Huntington's chorea, depression, bipolar disorders, mania, trigeminal and other neuralgia, neuropathic pain, hypertension, cerebral ischemia, cardiac arrhythmia, myotonia, substance abuse, myoclonus, essential tremor, dyskinesia and other movement disorders, neonatal cerebral hemorrhage, and spasticity, and other psychiatric and neurol. disorders mediated by GABA and/or GABA receptors.

MSTR 1

G1 = 213

G19 = 485

G20 = CH=CHCH=CH

G24 = 68-14 69-24 70-25

Patent location: claim 1

Note: also incorporates broader disclosure Note: additional substitution also claimed

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 13 OF 29 MARPAT COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 143:306200 MARPAT

TITLE: Preparation of hydroxy-6-heteroarylphenanthridines as

PDE4 inhibitors

INVENTOR(S): Schmidt, Beate; Flockerzi, Dieter; Hatzelmann, Armin;

Zitt, Christof; Barsig, Johannes; Marx, Degenhard;

Kley, Hans-Peter; Kautz, Ulrich

PATENT ASSIGNEE(S): Altana Pharma AG, Germany; Kautz, Ulrich

SOURCE: PCT Int. Appl., 176 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE

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20050915
                                          WO 2005-EP50931 20050302
     WO 2005085225
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            AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,
             CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,
             GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,
             LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI,
             NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM,
             SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
         RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,
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             RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML,
            MR, NE, SN, TD, TG
                     A1 20050915
     AU 2005219576
                                          AU 2005-219576
                                                            20050302
     CA 2557752
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                                          CA 2005-2557752 20050302
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     EP 1723135
                      Α1
                            20061122
                                          EP 2005-716889
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            HR, LV, MK, YU
     CN 1922170
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                            20070228
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     BR 2005008321
                      Α
                            20070724
                                           BR 2005-8321
                                                            20050302
                                          JP 2007-501289
     JP 2007526283
                      Τ
                            20070913
                                                            20050302
                                          ZA 2006-6176
     ZA 2006006176
                      Α
                            20080326
                                                            20060726
     MX 2006009695
                            20070326
                                          MX 2006-9695
                                                            20060825
                      Α
     US 20080167301 A1
IN 2006MN01086 A
                           20080710
                                          US 2006-590803
                                                            20060825
                           20070413
                                          IN 2006-MN1086
                                                            20060911
     NO 2006004221
                     Α
                           20060919
                                          NO 2006-4221
                                                            20060919
                      A
     KR 2006135837
                            20061229
                                          KR 2006-719892
                                                            20060926
                                                            20040303
PRIORITY APPLN. INFO.:
                                           EP 2004-4973
                                           EP 2004-106359
                                                            20041207
                                           WO 2005-EP50931 20050302
OTHER SOURCE(S): CASREACT 143:306200
```

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Title compds. I [R1, R2 = independently OH and F-substituted/cyclo/alkoxy, 2,2-difluoroethoxy, etc.; R1-R2 = alkylenedioxy; R3, R31 = independently H, alkyl; R4 = H, alkyl, OR41; R5 = OR51; R41, R51 = independently H, alkoxy/hydroxy/F-substituted/alkyl, alkylcarbonyl; Har = (un)substituted 5-10 membered monocyclyl or fused bicyclyl unsatd. or partially saturated heteroaryl comprising 1-4 heteroatoms selected from O, N, S; their salts, N-oxides, and salts of N-oxides] were prepared as effective PDE4 inhibitors for treating respiratory diseases. Thus, coupling of 2,6-dimethoxynicotinic acid with amine (1RS,3RS,4RS)-II (general preparation given, no data for its intermediates), cyclization, and saponification gave phenanthridine (1RS,3RS,4RS)-III. Selected I inhibited PDE4 with -log IC50 values in the range of 6.91 to 9.4 mol/1.

MSTR 1

GΙ

G6 = quinolinyl

Patent location: claim 1

Note: substitution is restricted

Note: additional oxo substitution also claimed note: and salts, N-oxides, and salts of N-oxides

Note: additional substitution also claimed

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 14 OF 29 MARPAT COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 143:193918 MARPAT

TITLE: Preparation of quinoline compounds as agricultural

fungicides

INVENTOR(S): Ito, Hiroyuki; Fujiwara, Kota; Morimoto, Munetsugu;

Tanaka, Harukazu; Tamagawa, Yasushi; Komai, Hiroyuki

PATENT ASSIGNEE(S): Sankyo Agro Company, Limited, Japan

SOURCE: PCT Int. Appl., 173 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT NO.	KIND DATE	APPLICATION NO. D	ATE
WO 2005070917	A1 20050804	WO 2005-JP1171 2	20050121
W: AE, AG,	AL, AM, AT, AU, AZ,	BA, BB, BG, BR, BW,	BY, BZ, CA, CH,
CN, CO,	CR, CU, CZ, DE, DK,	DM, DZ, EC, EE, EG,	ES, FI, GB, GD,
GE, GH,	GM, HR, HU, ID, IL,	IN, IS, JP, KE, KG,	KP, KR, KZ, LC,
LK, LR,	LS, LT, LU, LV, MA,	MD, MG, MK, MN, MW,	MX, MZ, NA, NI,
NO, NZ,	OM, PG, PH, PL, PT,	RO, RU, SC, SD, SE,	SG, SK, SL, SY,
TJ, TM,	TN, TR, TT, TZ, UA,	UG, US, UZ, VC, VN,	YU, ZA, ZM, ZW
RW: BW, GH,	GM, KE, LS, MW, MZ,	NA, SD, SL, SZ, TZ,	UG, ZM, ZW, AM,
AZ, BY,	KG, KZ, MD, RU, TJ,	TM, AT, BE, BG, CH,	CY, CZ, DE, DK,
EE, ES,	FI, FR, GB, GR, HU,	IE, IS, IT, LT, LU,	MC, NL, PL, PT,
RO, SE,	SI, SK, TR, BF, BJ,	CF, CG, CI, CM, GA,	GN, GQ, GW, ML,
MR, NE,	SN, TD, TG		
AU 2005206437	A1 20050804	AU 2005-206437 2	20050121
CA 2554187	A1 20050804	CA 2005-2554187 2	20050121
EP 1736471	A1 20061227	EP 2005-704224 2	20050121
R: AT, BE,	BG, CH, CY, CZ, DE,	DK, EE, ES, FI, FR,	GB, GR, HU, IE,
IS, IT,	LI, LT, LU, MC, NL,	PL, PT, RO, SE, SI,	SK, TR
CN 1910172	A 20070207	CN 2005-80002960 2	:0050121
US 20080275242	A1 20081106	US 2006-587100 2	:0060721

KR 2006127154 A 20061211 KR 2006-716976 20060823 PRIORITY APPLN. INFO.: JP 2004-15360 20040123 WO 2005-JP1171 20050121

GΙ

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Title compds. I, II, III, IV [R1, R2 = optionally substituted alkyl with halo, etc.; R3, R4 = H, halo, etc.; R5 = H, acyl, etc.; X = halo, etc.; Y = halo, etc.; n = 0-4; m = 0-6] were prepared For example, cyclization of quinoline-3-carbonitrile with a mixture of 1-fluoro-(2-methylpropen-1-yl)benzene and 1-fluoro-(2-methylpropen-2-yl)benzene in the presence of methanesulfonic acid afforded 3-(5-fluoro-3,3-dimethyl-3,4-dihydroisoquinolin-1-yl)quinoline (V) in 47% yield. Compds. V exhibited the fungicidal activity of 100% against pyricularia oryzae. Formulations are given.

MSTR 1

 $G1 = 60-17 \ 19-20 \ 60-2$

G2 = 22

G11 = 30

G12

Patent location: claim 1 Note: or salts

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 15 OF 29 MARPAT COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 142:316701 MARPAT

Preparation of pyridinyl benzenesulfonylamide TITLE: derivatives as chemokine receptor antagonist

INVENTOR(S): Habashita, Hiromu; Ochiai, Hiroshi; Tokuda, Natsuko;

Shibayama, Shiro; Watanabe, Noriki; Komiya, Takaki;

Takeda, Kazuhiko

Ono Pharmaceutical Co., Ltd., Japan PATENT ASSIGNEE(S):

PCT Int. Appl., 183 pp. SOURCE:

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

	PA]	CENT I	.O.		KI	ND	DATE			Al	PPLI	CATI	и ис	0.	DATE			
	WO	2005	0237	71	A	1	2005	0317		W	20	04-J:	P131	86	2004	0903		
		W:	ΑE,	AG,	AL,	ΑM,	ΑT,	ΑU,	ΑZ,	BA,	BB,	BG,	BR,	BW,	BY,	BZ,	CA,	CH,
			CN,	CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	EG,	ES,	FI,	GB,	GD,
			GE,	GH,	GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	ΚE,	KG,	KP,	KR,	KΖ,	LC,
			LK,	LR,	LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NA,	NI,
			NO,	NZ,	OM,	PG,	PH,	PL,	PT,	RO,	RU,	SC,	SD,	SE,	SG,	SK,	SL,	SY,
			ΤJ,	TM,	TN,	TR,	TT,	TZ,	UA,	UG,	US,	UΖ,	VC,	VN,	YU,	ZA,	ZM,	ZW
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			ΑZ,	BY,	KG,	KΖ,	MD,	RU,	ΤJ,	TM,	AT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,
			EE,	ES,	FI,	FR,	GB,	GR,	HU,	ΙE,	ΙT,	LU,	MC,	NL,	PL,	PT,	RO,	SE,
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			SN,	TD,	ΤG													
	ΕP	1661	889		Α	1	2006	0531		E	P 20	04-7	7292	5	2004	0903		
		R:	AT,	BE,	CH,	DE,	DK,	ES,	FR,	GB,	GR,	ΙΤ,	LI,	LU,	NL,	SE,	MC,	PT,
			ΙE,	SI,	FI,	RO,	CY,	TR,	BG,	CZ,	EE,	HU,	PL,	SK				
	US	2007	0254	886	A	1	2007	1101		U	S 20	04 - 5	7081	3	2004	0903		
PRIOR	ZTI.	APP:	LN.	INFO	.:					J1	P 20	03-3	1424	8	2003	0905		
										J1	P 20	04 - 1	4968	3	2004	0519		
										M	O 20	04-J	P131	86	2004	0903		

GΙ

10/587100

AB Title compds. represented by the formula I [wherein ring A, B, D = independently (un)substituted cyclic group; J = OCH2, NHCH2, NHCO, C.tplbond.C; G = NHSO2; and their salts, N-oxides, solvates, or prodrugs thereof] were prepared as chemokine receptor (CCR) antagonist. For example, reaction of 3-chloro-2-methylbenzenesulfonylchloride with [4-chloro-3-[(1-methylpiperidin-4-yl)methoxy]phenyl]methanol gave II. II showed inhibition of human CCR4 with an IC50 value of 0.23 μM in the presence of 0.3% BSA. Thus, I and their pharmaceutical compns. are useful as chemokine receptor (especially CCR4 and/or CCR5) antagonists for the prevention and/or treatment of diseases associated with chemokine receptor, such as inflammatory, allergic diseases, organ transplant rejection reaction, and neoplasms.

MSTR 1

 $G1 = 117-2 \ 118-3$

G2 = 396

G3 = bond G6 = bond Patent location

Patent location: claim 1

10/587100

Note: or salts or n-oxides, solvates or prodrugs Note: not both G3 and G6 contain more than 4 atoms

REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 16 OF 29 MARPAT COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 142:261402 MARPAT

TITLE: Preparation of phenanthridine derivatives as

anti-viral agents

INVENTOR(S):
Tor, Yitzhak; Luedtke, Nathan

PATENT ASSIGNEE(S): The Regents of the University of California, USA

SOURCE: PCT Int. Appl., 58 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PA:	TENT :	NO.		KI	ND	DATE			А	PPLI	CATI	ON N	Ο.	DATE			
WO	2005	0163	 43		 1	2005	0224		W	0 20	 04-U	 S261	 88	2004	 0811		
	W:	ΑE,	AG,	AL,	ΑM,	ΑT,	ΑU,	AZ,	BA,	BB,	BG,	BR,	BW,	BY,	BZ,	CA,	CH,
		CN,	CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	EG,	ES,	FI,	GB,	GD,
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		LK,	LR,	LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MΖ,	NA,	NI,
		NO,	NZ,	OM,	PG,	PH,	PL,	PT,	RO,	RU,	SC,	SD,	SE,	SG,	SK,	SL,	SY,
		ΤJ,	TM,	TN,	TR,	TT,	TZ,	UA,	UG,	UZ,	VC,	VN,	YU,	ZA,	ZM,	ZW	
	RW:	BW,	GH,	GM,	ΚE,	LS,	MW,	MΖ,	NA,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	AM,
		ΑZ,	BY,	KG,	KΖ,	MD,	RU,	ТJ,	TM,	ΑT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,
		EE,	ES,	FI,	FR,	GB,	GR,	HU,	ΙE,	ΙΤ,	LU,	MC,	NL,	PL,	PT,	RO,	SE,
		SI,	SK,	TR,	BF,	ВJ,	CF,	CG,	CI,	CM,	GΑ,	GN,	GQ,	GW,	ML,	MR,	ΝE,
		SN,	TD,	ΤG													

PRIORITY APPLN. INFO.: US 2003-495445P 20030811

OTHER SOURCE(S): CASREACT 142:261402

GΙ

$$R^{1}$$
 R^{2}
 R^{2}

AB A series of substituted phenanthridine derivs. (e.g. ethidium derivs. I and II) (R, R' = each functionalized or unfuctionalized alkyl, alkenyl, alkynyl, aryl, aralkyl, heteroaryl, or alkheteroaryl; wherein alkheteroaryl refers to a straight-chain alkyl, alkenyl or alkynyl group where one of the hydrogen atoms bonded to a terminal carbon atom is replaced with a heteroaryl moiety; Ar = optionally substituted Ph or any aromatic residue; R1, R2 = independently selected from the group consisting of a urea, a substituted urea, a di-Boc-guanidine, conjugated amino acids, carbohydrates, NH2, 1-pyrrolyl, guanidino, and benzyloxycarbonylamino) has been synthesized by converting the amines at the 3- and 8- positions of

ethidium bromide into guanidine, pyrrole, urea, and various substituted ureas. The resulting derivs. exhibit unique spectral properties that change upon binding nucleic acids. These compds. maximize the binding affinity of phenanthridine to viral RNA and DNA sites, while minimizing the binding to host cell DNA. The antiviral activity of the compds. can thus be maximized, while toxic and/or mutagenic side effects are minimized. The compds. have an enhanced affinity and specificity for HIV-1 rev response element as compared to ethidium bromide. Thus, ethidium bromide was acylated by Ph chloroformate in a mixture of 500 mM sodium phosphate buffer (pH 6.6) and acetone at room temperature for 10 min to give 3,8-bis(phenoxycarbonylamino)-6-phenyl-5-ethylphenanthridinium dihydrogenphosphate which was heated with NH3 in methanol in a pressure tube at 80° for 1 h to give 3,8-di(ureido)-6-phenyl-5-ethylphenanthridinium chloride (III). III in vitro showed the binding affinity to DNA with Kd of 106, μM , IC50 of $>1/0~\mu\text{M}~\mu\text{g/mL}$ against HIV-1 rev response element, IC50 of 15 μM against HIV-1, and exhibited no toxicity against HeLa cells at 10 μM .

MSTR 1B

G1 = 19

19 19

G6 = quinolinyl

Patent location: claim 2

Note: substitution is restricted

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 17 OF 29 MARPAT COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 142:219282 MARPAT

TITLE: Pyrazoloisoquinoline derivatives as kinase inhibitors,

and their preparation, pharmaceutical compositions,

and use in the treatment of diseases involving

increased NIK activity.

INVENTOR(S): Majid, Tahir N.; Hopkins, Corey; Pedgrift, Brian L.;

Collar, Nicola; Wirtz-Brugger, Friederike; Merrill,

Jean

PATENT ASSIGNEE(S): Aventis Pharmaceuticals Inc., USA

SOURCE: PCT Int. Appl., 94 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PA.	TENT	NO.		KI		DATE					CATI		Ο.	DATE			
WO	2005	0123	01	A									44	2003	0703		
	W:	ΑE,	AG,	AL,	AM,	ΑT,	ΑU,	AZ,	BA,	BB,	BG,	BR,	BY,	BZ,	CA,	CH,	CN,
		CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	ES,	FΙ,	GB,	GD,	GE,	GH,
		GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	KΕ,	KG,	KP,	KR,	KΖ,	LC,	LK,	LR,
		LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MΖ,	NΙ,	NO,	NZ,	OM,
		PH,	PL,	PT,	RO,	RU,	SC,	SD,	SE,	SG,	SK,	SL,	ТJ,	TM,	TN,	TR,	TT,
		TZ,	UA,	UG,	US,	UZ,	VC,	VN,	YU,	ZA,	ZM,	ZW					
	RW:	GH,	GM,	ΚE,	LS,	MW,	MZ,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	AM,	AZ,	BY,
		KG,	KΖ,	MD,	RU,	ТJ,	TM,	ΑT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,	EE,	ES,
		FΙ,	FR,	GB,	GR,	HU,	IE,	ΙΤ,	LU,	MC,	NL,	PT,	RO,	SE,	SI,	SK,	TR,
		BF,	ВJ,	CF,	CG,	CI,	CM,	GΑ,	GN,	GQ,	GW,	ML,	MR,	NE,	SN,	TD,	TG
CA	2531	291		А	1	2005	0210		C	A 20	03-2	5312	91	2003	0703		
AU	2003	3043	80	Α	1	2005	0215		A	U 20	03-3	0438	0	2003	0703		
EP	1644	371		Α	1	2006	0412		E:	P 20	03-7	4243.	3	2003	0703		
EP	1644	371		В	1	2008	0213										
	R:	ΑT,	BE,	CH,	DE,	DK,	ES,	FR,	GB,	GR,	ΙΤ,	LI,	LU,	NL,	SE,	MC,	PT,
		IE,	SI,	FΙ,	RO,	CY,	TR,	BG,	CZ,	EE,	HU,	SK					
	1802																
	2003																
JP	2007	5212.	27	T		2007	0802		J:	P 20	05-5	0744	9	2003	0703		
	3860	34		Τ		2008	0315		A'	T 20	03-7	4243.	3	2003	0703		
MX	2005	0134	85	Α		2006	0405		M.	X 20	05-1	3485		2005	1213		
MX	2005	0134	86	A		2008	0929		M:	X 20	05-1	3486		2005	1213		
	2006									R 20	06-7	0017	8	2006	0103		
IN	2006	CN00	034	Α		2007	0601							2006			
CIORIT	Y APP	LN.	INFO	.:					U	S 20	03-4	6179	5	2003	0613		
									M	0 2 0	03-U	S211	44	2003	0703		
HER SO	DURCE	(S):			CAS	REAC'	T 14:	2:21	9282								

OTHER SOURCE(S):

CASREACT 142:219282

GΙ

Novel pyrazoloisoquinoline derivs. I, useful as kinase inhibitors, are AΒ disclosed [wherein: A = (un)substituted alkyl, OH or derivs., SH or derivs., CO2H or derivs., NH2 or derivs., cyano, (un)substituted heteroaryl, cycloalkyl, or heterocyclyl; B = bond, (un)substituted CH:CH, C.tplbond.C, O(CH2)1-4, O, S, CO, (un) substituted NH, NHCO, CONH, NHSO2, SO2NH, NHCONH, or C1-4 alkylene; D = (un) substituted alkyl, heteroaryl,

heterocyclyl, aryl, or cycloalkyl; or BD = H, halo, fluoroalkoxy, (un)substituted alkyl; R = H, alkyl, (un)substituted arylalkyl; X, Z = H, alkyl, OH, alkoxy, halo, fluoroalkyl, CO2H or derivs., NH2 or derivs., cyano, SH or derivs., (un)substituted heterocyclyl or cycloalkyl; with provisos]. I are suitable for producing pharmaceuticals for the prophylaxis and therapy of diseases whose course involves an increased activity of NIK. Approx. 75 examples were prepared, and these plus addnl. compds. are individually claimed. For instance, 3-methoxybenzoic acid was condensed with 3-methyl-5-phenyl-1H-pyrazol-4-ylamine using HOBT and DIPC, and the resultant benzamide derivative was cyclized by treatment with P2O5 and POC13 in xylene at 160°, to give title compound II. In a test for inhibition of release of IL1 β , TNF α , and IL6 in LPS-stimulated heparinized whole human blood, II had IC50 values of 1.3, 1.2, and 7 μ M, resp.

MSTR 1

G27 N N G1
G27 N G1
G27 G12

G12 = 55

G14—G13 55 56

G13 = quinolinyl

G14 = bond

Patent location: claim 1

Note: or pharmaceutically acceptable salts

Note: substitution is restricted

Note: also incorporates broader disclosure

Stereochemistry: or stereoisomeric forms

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 18 OF 29 MARPAT COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 142:134600 MARPAT

TITLE: Preparation of pyrazoloisoquinolines as $NF\kappa B$ -inducing kinase (NIK) inhibitors

INVENTOR(S): Majid, Tahir Nadeem; Hopkins, Corey; Pedgrift, Brian

Leslie; Collar, Nicola; Wirtz-Brugger, Friederike;

Merrill, Jean

PATENT ASSIGNEE(S): Aventis Pharmaceuticals Inc., USA SOURCE: U.S. Pat. Appl. Publ., 41 pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20050009859	A1	20050113	US 2003-613588	20030703
US 7132428	В2	20061107		
PRIORITY APPLN. INFO.	:		US 2003-613588	20030703
GT				

Title compds. [I; A = (substituted) alkyl, heteroaryl, heterocyclyl; B = AΒ bond, C:CR1, C.tplbond.C, O(CH2)a, O, S, CO, NR2, NR2CO, (substituted) alkylene, etc.; R1 = H, alkyl, aryl, etc.; R2 = alkyl, OH, alkoxy, halo, etc.; a = 1-4; D = (substituted) alkyl, heteroaryl, heterocyclyl, aryl, cycloalkyl; BD = H, halo, fluoroalkyl, fluoroalkoxy, etc.; R = H, alkyl, (substituted) aralkyl; X, Z = H, alkyl, OH, alkoxy, halo, fluoroalkyl, CO2R1, N(R1)2, cyano, SR1, SOR1, SO2R1, (substituted) heterocyclyl, cycloalkyl, etc.; with provisos], were prepared Thus, hydroxybenzotriazole, diisopropyl carbodiimide, benzoic acid, and 3,5-diphenyl-1H-pyrazol-4-ylamine were stirred 12 h in MeCN to give a residue which was heated with P2O5 and POC13 in xylene at $150\,^{\circ}$ for 4 h followed by stirring at room temperature for 12 h to give 3,5-diphenyl-1H-pyrazolo[4,3-c]isoquinoline. The latter inhibited ${
m TNF}lpha$ release in LPS-stimulated human peripheral blood lymphocytes with IC50 = 1.9 nM.

MSTR 1

G12 = 55

G14—G13 55 56 G13 = 246

= bond

Patent location: claim 1

Note: or pharmaceutically acceptable salts

Note: substitution is restricted Stereochemistry: or stereoisomeric forms

THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS REFERENCE COUNT: 8 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 19 OF 29 MARPAT COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 139:401354 MARPAT

Light emitting device and display apparatus using same TITLE:

Tsuboyama, Akira; Okada, Shinjiro; Takiguchi, Takao; INVENTOR(S):

Ueno, Kazunori; Igawa, Satoshi; Kamatani, Jun;

Furugori, Manabu; Iwawaki, Hironobu

PATENT ASSIGNEE(S): Canon Kabushiki Kaisha, Japan

SOURCE: PCT Int. Appl., 53 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

	PATENT NO.					ND	DATE			A.	PPLI	CATI	ON No	٥.	DATE			
	wo	2003	0955	 87	A	1	2003	1120		M	20	 03-J:	P560	1	2003	0502		
		W:	ΑE,	AG,	AL,	ΑM,	ΑT,	ΑU,	AZ,	BA,	BB,	BG,	BR,	BY,	BZ,	CA,	CH,	CN,
			CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	ES,	FI,	GB,	GD,	GE,	GH,
			GM,	HR,	HU,	ID,	IL,	IN,	IS,	ΚE,	KG,	KP,	KR,	KΖ,	LC,	LK,	LR,	LS,
			LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NI,	NO,	NZ,	OM,	PH,
			PL,	PT,	RO,	RU,	SC,	SD,	SE,	SG,	SK,	SL,	ΤJ,	TM,	TN,	TR,	TT,	TZ,
			UA,	UG,	US,	UZ,	VC,	VN,	YU,	ZA,	ZM,	ZW						
		RW:	GH,	GM,	ΚE,	LS,	MW,	MZ,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	AM,	ΑZ,	BY,
			KG,	KΖ,	MD,	RU,	ТJ,	TM,	ΑT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,	EE,	ES,
			FI,	FR,	GB,	GR,	HU,	ΙE,	ΙΤ,	LU,	MC,	NL,	PT,	RO,	SE,	SI,	SK,	TR,
			BF,	ΒJ,	CF,	CG,	CI,	CM,	GΑ,	GN,	GQ,	GW,	ML,	MR,	ΝE,	SN,	TD,	TG
	JΡ	2003	3320	74	Α		2003	1121		J.	P 20	02-1	3409	8	2002	0509		
	AU	2003	2315	79	А	1	2003	1111		A	U 20	03-2	3157	9	2003	0502		
	US 20050221115					1	2005	1006		U	S 20	04-5	0731	6	2004	0910		
	US	7361	414		В	2	2008	0422										
PRIOR	ΙTΊ	APP:	LN.	INFO	.:					J.	P 20	02-1	3409	8	2002	0509		
										M	0 2 0	03-J	P560	1	2003	0502		

A light emitting device is described comprising a pair of electrodes AΒ provided on a substrate, and an organic substance layer provided between the electrode and comprising a copper coordination compound having a partial structure represented by the general formula (1): Cu-N(A), wherein heterocyclic ring A including nitrogen atom N represents a pyridine or quinoline ring, or a heterocyclic ring having one or more C-H of a pyridine or quinoline ring replaced with nitrogen atom(s), and the

heterocyclic rings may have a substituent selected from the group consisting of an aromatic ring group that may have a substituent, a halogen atom, or a linear or branched alkyl group having 1-10 C atoms in which only a single methylene group or two or more non-adjacent methylene groups of the alkyl group may be substituted with -O-, -S-, -CO-, -CO-O-, -O-CO-, -CH=CH-, or -CC-, and a hydrogen atom of the alkyl group may be substituted with a fluorine atom or an aromatic ring group. A display apparatus

comprising the light emitting device is also described.

MSTR 1

G1 G10

G1 = 70

G6 |70 G7

Note: as complexes with G10

Note: additional ligands also claimed

REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 20 OF 29 MARPAT COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 136:369742 MARPAT

TITLE: Preparation of annelated pyrido[1,2-a]pyrazinediones

as cGMP-specific phosphodiesterase inhibitors

INVENTOR(S): Orme, Mark W.; Sawyer, Jason Scott; Schultze, Lisa M.

PATENT ASSIGNEE(S): Lilly Icos LLC, USA SOURCE: PCT Int. Appl., 77 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATE	I TN	. O <i>l</i> .		KII	ND	DATE			A.	PPLI	CATI	ON N	٥.	DATE			
WO 2	002	 0385	 63	 A:	 2	2002	0516		W.	 D 20	 01-U	 S313	 86	2001	1009		
WO 2	002	0385	63	A.	3	2002	0906										
	W:	ΑE,	AG,	AL,	AM,	ΑT,	ΑU,	ΑZ,	ΒA,	BB,	BG,	BR,	BY,	BZ,	CA,	CH,	CN,
		CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	ES,	FI,	GB,	GD,	GE,	GH,
		GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	ΚE,	KG,	KP,	KR,	KΖ,	LC,	LK,	LR,
		LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NO,	NΖ,	PH,	PL,
		PT,	RO,	RU,	SD,	SE,	SG,	SI,	SK,	SL,	ΤJ,	TM,	TR,	TT,	TZ,	UA,	UG,
		US,	UZ,	VN,	YU,	ZA,	ZW										
	RW:	GH,	GM,	KΕ,	LS,	MW,	MZ,	SD,	SL,	SZ,	TZ,	UG,	ZW,	ΑT,	BE,	CH,	CY,
		DE,	DK,	ES,	FI,	FR,	GB,	GR,	ΙE,	IT,	LU,	MC,	NL,	PT,	SE,	TR,	BF,

AU EP	2427608 200109669 1366050	99	A. A	1	,	0516 0521 1203	ŕ	CA At	A 20 J 20	01-2 01-9	4276 6699	08	SN, 20013 20013 20013	1009 1009	TG	
111	R: AT,			_			FR,	GB,	GR,	IT,	LI,	LU,	NL,	SE,	MC,	PT,
								CY,			,	·	ŕ	·	·	·
JP	200451316	59 ·	Τ	·	2004	0430	·	JI	20	02-5	4109	6	20013	1009		
JP	4101054		В	2	2008	0611										
AT	293111		Τ		2005	0415		A:	Г 20	01-9	7759	2	20013	1009		
ES	2241879		T_{s}^{2}	3	2005	1101		ES	5 20	01-9	7759	2	20013	1009		
US	200400389	978	A.	1	2004	0226		US	5 20	03-3	9881	9	20030	0409		
US	6960587		В	2	2005	1101										
MX	200300402	23	Α		2004	0212		M	X 20	03-4	023		20030	0507		
PRIORIT	Y APPLN.	INFO	.:					US	5 20	00-2	4680	5P	20003	1108		
								WO	20	01-U	S313	86	2001	1009		
GI																

$$R^4$$
 R^5
 R^2
 R^3
 R^3

AΒ Title compds. [e.g., I; R1 = e.g., Me; R2 = e.g., piperonyl; R3 = H or alkyl; R4R5 = atoms to complete a imidazole, thiazole, benzene, or pyridine ring, etc.] were prepared Thus, D-histamine Me ester (preparation given) was cyclocondensed with piperonal and the N-chloroacetylated product cyclocondensed with MeNH2 to give I (R1 = Me, R2 = piperonyl, R3 = H, R4R5 = N:CHN). Data for biol. activity of 2 prepared I were given.

MSTR 1

$$\begin{array}{c|c}
H & O \\
G1 & N \\
G6 & G4
\end{array}$$

$$\begin{array}{c|c}
G3 \\
G5 \\
G4 & O
\end{array}$$

= o-C6H4= quinolinyl

Patent location:

claim 1 Note: additional ring formation also claimed Note: and pharmaceutically acceptable salts

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 21 OF 29 MARPAT COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 136:118400 MARPAT

TITLE: Novel 6-heteroarylphenanthridines

INVENTOR(S): Bundschuh, Daniela; Flockerzi, Dieter; Grundler, Gerhard; Hatzelmann, Armin; Kley, Hans-Peter;

Weinbrenner, Steffen; Gutterer, Beate

PATENT ASSIGNEE(S): Byk Gulden Lomberg Chemische Fabrik G.m.b.H., Germany

SOURCE: PCT Int. Appl., 35 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

F	PATENT NO.					ND	DATE			Α.	PPLI	CATI	ON N	Ο.	DATE			
_ ⊽	VO 2	20020	0062	70	 A:	1				M	D 20	 01-Е	 P781	8	2001	0707		
		W:	ΑE,	AL,	AU,	BA,	BG,	BR,	CA,	CN,	CO,	CZ,	EC,	EE,	GE,	HR,	HU,	ID,
			IL,	IN,	JP,	KR,	LT,	LV,	MK,	MX,	NO,	NΖ,	PL,	RO,	SG,	SI,	SK,	UA,
															ТJ,			
		RW:	•	•		CY,	DE,	DK,	ES,	FΙ,	FR,	GB,	GR,	IE,	IT,	LU,	MC,	NL,
			,	SE,														
	CA 2415935																	
E	EP 1303506					1	2003	0423		E.	P 20	01-9	6284	4	2001	0707		
E	EP 1303506				В	1	2005	0202										
	R: AT, BE					DE,	DK,	ES,	FR,	GB,	GR,	ΙΤ,	LI,	LU,	NL,	SE,	MC,	PT,
			IE,	SI,	LT,	LV,	FI,	RO,	MK,	CY,	AL,	TR						
-	JP 2	20045	50431	16	T		2004	0212		J:	P 20	02-5	1217	3	2001	0707		
P	AT 2	28843	30		T		2005	0215		A'	Г 20	01-9	6284	4	2001	0707		
E	ES 2	22362	288		T	3	2005	0716		E	S 20	01-9	6284	4	2001	0707		
P	AU 2	20012	28393	35	В	2	2006	0713		A	J 20	01-2	8393	5	2001	0707		
Ţ	AU 2001283935 US 20040038979					1	2004	0226		IJ	S 20	02 - 2	9776	5	2002	1209		
	US 6884802 B2									_				-				
	RIORITY APPLN. INFO					_		0		E	P 2.0	00-1	1535	2.	2000	0714		
	TOTAL THE BIT OF												P781		2001			
GI										, ,	0	V Т П.	- , 0 1	•	_001			
<u> </u>																		

AB Compds. I, [which R and R = independently OH, (cyclo)alkoxy,

Ι

cycloalkylmethoxy, or F-substituted alkoxy; or R and R taken together = 1,2-alkylenedioxy; R, R, and R = independently H or alkyl; or R and R taken together = alkylene; R and R = H or together form a double bond; Het = an (un)substituted pyrrolyl, furanyl, thienyl, pyrazolyl, imidazolyl, oxazolyl, isoxazolyl, thiazolyl, isothiazolyl, thiadiazolyl, pyrimidinyl, pyrazinyl or pyridazinyl radical, or an (un)substituted fused bi-or tricyclic ring system comprising at least one aromatic ring and up to 4 heteroatoms-selected from the group consisting of O, S or N, which is bonded to the phenanthridinyl radical via one of the rings comprising one or more heteroatoms] were prepared as reactive PDE4 inhibitors and treating airway diseases. For example, (-)-cis-8,9-dimethoxy-6-quinolin-4-yl-1,2,3,4,4a,10b-hexahydrophenanthridine was prepared by cyclocondensation of (-)-cis-N-[2-(3,4-dimethoxyphenyl)cyclohexyl]quinoline-4-carboxamide (preparation given). In an assay against phosphodiesterase IV (PDE4), I showed inhibitory activity with -log IC50 value of 7.4.

MSTR 1

G1 = 176

Patent location: claim 1

Note: and salts and N-oxides
Note: substitution is restricted

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 22 OF 29 MARPAT COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 136:69825 MARPAT

TITLE: Preparation of heterocycles containing a

pyrido[1,2-a]pyrazinedione subunit for therapeutic use

as phosphodiesterase V inhibitors

INVENTOR(S): Orme, Mark W.; Sawyer, Jason Scott; Schultze, Lisa M.

PATENT ASSIGNEE(S): Lilly Icos LLC, USA SOURCE: PCT Int. Appl., 86 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

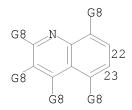
	PATENT NO.					ND	DATE			A.	PPLI	CATI	и ис	٥.	DATE			
	_	2002		-						M	0 20	 01-U	S155	50	2001	0515		
	WO		AE, CO,	AG, CR,	AL, CU,	AM, CZ,	AT, DE,	AU, DK,	AZ, DM,	DZ,	EC,	EE,	ES,	FI,	BZ, GB, KZ,	GD,	GE,	GH,
			RO,		SD,	SE,	SG,				,	,	•		NO, TZ,	,	•	,
		R₩:	GH, DE,	GM, DK,	KE, ES,	LS, FI,	MW, FR,	GB,	GR,	IE,	IT,	LU,	MC,	NL,	AT, PT, TD,	SE,		
	CA 2413510					1 '	2002	0103	·				•		•			
	CA 2413510													_				
		1313 1313								E.	P 20	01-9	4413.	5	2001	0515		
•	ĽР		AT,	BE,	CH,	DE,	DK,	ES,					LI,	LU,	NL,	SE,	MC,	PT,
		0004	•				FI,	•			•		0 - 70	1	0001	0 - 1 -		
,	JP	2004	43 2013	19	1		2004	0122		. U	P 20	02-5	UD / 8.	_	2001	0515		
	EC VI	3005 2247	43 138		т Т	3	2005	0013		A	20	01-9 01-0	4413. 4413.	5 5	2001	0515		
	211	2003	130 N181	457	Δ.	J 1	2000	0901		11	S 20	01-2	9773.	5	2001	1206		
		6903									0 20	02 2	5 1 1 5.	•	2002.	1200		
		2002								M:	X 20	02-1	2659		2002	1218		
PRIOR	RIORITY APPLN. INFO				.:					U	S 20	00-2	1428	4P	2000	0626		
										M	0 2 0	01-U	S155	50	2001	0515		
GI																		

AB Heterocycles containing a 9,9a-dihydro-2H-pyrido[1,2-a]pyrazine-1,4(3H,6H)-dione subunit, such as I [R1 = H, alkyl, alkenyl, alkynyl, haloalkyl, cycloalkyl, aryl, heteroarylalkyl; R2 = Ph, thienyl, furanyl, pyridinyl, etc.; R4R5 = fused heterocyclic or carbocyclic ring], were prepared for pharmaceutical use as phosphodiesterase V inhibitors for treatment of conditions, such as erectile dysfunction and female arousal disorder. Thus, dione II was prepared via cyclocondensation of

(±)- α -amino-1H-pyrrolo[2,3-b]pyridine-3-propanoic acid Me ester with piperonal followed by N-acylation of the cyclocondensation product with C1CH2COCl and subsequent cyclocondensation of the N-acylated product with MeNH2. The prepared pyrido[1,2-a]pyrazinediones were tested for their ability to inhibit phosphodiesterase V.

MSTR 1A

G5 = quinolinyl G7 = 22-3 23-1



Patent location: claim 1

Note: and pharmaceutically acceptable salts and solvates

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 23 OF 29 MARPAT COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 134:193217 MARPAT

TITLE: Process for preparing biaryl compounds INVENTOR(S): Miller, Joseph A.; Farrell, Robert P.

PATENT ASSIGNEE(S): Catalytica, Inc., USA

SOURCE: U.S., 14 pp. CODEN: USXXAM

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6194599	B1	20010227	US 1997-825792	19970408
US 5922898	A	19990713	US 1997-966335	19971107
PRIORITY APPLN.	INFO.:		US 1997-825792	19970408
			100015	

OTHER SOURCE(S): CASREACT 134:193217

AB The title process comprises reacting an arylzinc reagent with an aryl chloride in the presence of a Ni or a Pd catalyst. Thus, PhLi was treated with ZnCl and the product condensed with 4-ClC6H4CN in the presence of a

prepared Ni catalyst to give 81% 4-PhC6H4CN.

MSTR 1

G1---G1

G1 = quinolinyl / isoquinolinyl Patent location: claim 1

Note: also incorporates broader disclosure

REFERENCE COUNT: 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 24 OF 29 MARPAT COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 133:222971 MARPAT

TITLE: Preparation of 6-O-substituted macrolides erythromycin

analogs having antibacterial activity

INVENTOR(S): Or, Yat Sun; Clark, Richard F.; Ma, Zhenkun; Rupp,

Michael J.

PATENT ASSIGNEE(S): Abbott Laboratories, USA SOURCE: PCT Int. Appl., 142 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT NO.	KIND DATE	APPLICATION NO. DATE
W: AE, AL,	AM, AT, AU, AZ,	WO 2000-US6033 20000308 BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN,
IS, JP, MK, MN,	KE, KG, KP, KR, MW, MX, NO, NZ,	KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, UZ, VN, YU, ZA, ZW
RW: GH, GM, DK, ES,	KE, LS, MW, SD, FI, FR, GB, GR,	SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, ML, MR, NE, SN, TD, TG
CA 2367431 CA 2367431	A1 20000921 C 20080610	CA 2000-2367431 20000308
EP 1161438	B1 20040506	EP 2000-913805 20000308 FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
IE, SI, TR 200102522 HU 2002001067 HU 2002001067	LT, LV, FI, RO T2 20011221 A2 20020828 A3 20040728	TR 2001-2522 20000308 HU 2002-1067 20000308
JP 2002539217 NZ 513206 AT 266036 ES 2222189	T 20040515 T3 20050201 A 20021026	BR 2000-8731 20000308 JP 2000-605596 20000308 NZ 2000-513206 20000308 AT 2000-913805 20000308 ES 2000-913805 20000308 ZA 2001-6181 20010726 IN 2001-MN926 20010801
BG 105865	A 20020531	BG 2001-105865 20010901

NO 2001004380 A 20010910 NO 2001-4380 20010910 MX 2001009290 A 20020225 MX 2001-9290 20010914 PRIORITY APPLN. INFO.: US 1999-270497 19990315 WO 2000-US6033 20000308

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GΙ

AB The instant invention provides novel macrolide I wherein X' is selected from the group consisting of C1-C10 alkyl, C3-C10 alkenyl, and C3-C10 alkynyl; Y' and Z' are independently selected from the group consisting of: (c) optionally substituted aryl, and (d) optionally substituted heteroaryl, with the proviso that both Y' and Z' are not both Ph, and with the further proviso that Y' is not isoxazole when Z' is thiophenyl; R is a hydroxy protecting group; L is CH2, CO; T is O, NH, substituted imine; and compns. useful in treating bacterial infections. Thus, I [R = H, L = CO, T = NH, X'Y'Z' = CH2C.tplbond.C-(5-(2-pyridyl)-2-thienyl)] was prepared and tested in vitro for its antibacterial activity.

MSTR 1

G7 = 55

G8 = 160-57 168-55

Note: also incorporates claim 14

Note: or pharmaceutically acceptable salts, solvates,

esters or prodrugs

Note: substitution is restricted

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 25 OF 29 MARPAT COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 133:104972 MARPAT

TITLE: Preparation of 6-arylphenanthridines as

phosphodiesterase IV inhibitors.

INVENTOR(S): Flockerzi, Dieter; Amschler, Hermann; Grundler,

Gerhard; Hatzelmann, Armin; Bundschuh, Daniela; Beume,

Rolf; Boss, Hildegard; Goebel, Karl-Josef; Kley,

Hans-Peter; Gutterer, Beate

PATENT ASSIGNEE(S): Byk Gulden Lomberg Chemische Fabrik G.m.b.H., Germany

SOURCE: PCT Int. Appl., 35 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PA	PATENT NO.			KI	ND	DATE			Α.	PPLI	CATI	и ис	Ο.	DATE			
WC	2000	0420	 19	A	1	2000	0720		M	20 C	00-E	P152		2000	0112		
	W:	ΑE,	AL,	ΑU,	ΒA,	ВG,	BR,	CA,	CN,	CZ,	EE,	GE,	HR,	HU,	ID,	IL,	IN,
		JP,	KR,	LT,	LV,	MK,	MX,	NO,	NΖ,	PL,	RO,	SG,	SI,	SK,	TR,	UA,	US,
		VN,	YU,	ZA,	ZW,	ΑM,	ΑZ,	BY,	KG,	KΖ,	MD,	RU,	ΤJ,	TM			
	RW:	ΑT,	BE,	CH,	CY,	DE,	DK,	ES,	FΙ,	FR,	GB,	GR,	ΙE,	ΙΤ,	LU,	MC,	NL,
		PT,															
CZ	CA 2359416			А	1	2000	0720		C	A 20	00 - 23	3594	16	2000	0112		
E	EP 1147088			A	1	2001	1024		E:	P 20	00-9	0153	0	2000	0112		
EF	1147	088		В	1	2006	0104										
	R:	ΑT,	BE,	CH,	DE,	DK,	ES,	FR,	GB,	GR,	ΙΤ,	LI,	LU,	NL,	SE,	MC,	PT,
		ΙE,	SI,	LT,	LV,	FΙ,	RO,	CY									
JE	2002	5345	07	T		2002	1015		J:	P 20	00-59	9358	7	2000	0112		
A7	3150					2006	0215		A'	T 20	00-9	0153	0	2000	0112		
ES	2255	483		T	3	2006	0701		\mathbf{E}	S 20	00-9	0153	0	2000	0112		
US	6479	505		В	1	2002	1112		U	S 20	01-8	8914	3	2001	0712		
PRIORIT	Y APP	LN.	INFO	.:					E:	P 19	99-1	0070	5	19990	0115		
									M	0 2 0	00-E	P152		2000	0112		

GΙ

Title compds. [I; R1, R2 = OH, alkoxy, cycloalkoxy, cycloalkylmethoxy, fluoroalkoxy; R1R2 = alkylenedioxy; R3, R31, R4 = H, alkyl; R3R31 = alkylene; R5, R51 = H; R5R51 = bond; Ar = specified (substituted) bi- or tricyclyl], were prepared Thus, (-)-cis-N-[2-(3,4-dimethoxyphenyl)cyclohexyl]-3,4-methylenedioxybenzamide (preparation given) was heated with POCl3 in MeCN at 80° for 3 h to give (-)-cis-6-benzo[1,3]dioxol-5-yl-8,9-dimethoxy-1,2,3,4,4a,10b-hexahydrophenanthridine. This inhibited PDE4 with -log IC50 = 7.28.

MSTR 1

$$\begin{array}{c} & & & & & & & & & \\ & & & & & & & & \\ & & & & & & & \\ & & & & & & \\ & & & & & & \\ & & & & & & \\ & & & & & & \\ & & & & & & \\ & & & & & & \\ & & & & & & \\ & & & & & & \\ & & & & & & \\ & & & & & & \\ & & & & & & \\ & & & & & & \\ & & & & & & \\ & & & & & \\ & & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & \\ & & & \\ & & & \\ & & \\ & & & \\ & & \\ & & & \\ & & & \\ & & \\ & & & \\ & & \\ & & & \\ &$$

G6 = quinolinyl

Derivative: or salts of N-oxides

Ι

Patent location: claim 1

Note: substitution is restricted

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 26 OF 29 MARPAT COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 131:58654 MARPAT

TITLE: Organometallic process and catalysts for preparing

biaryl compounds

INVENTOR(S): Miller, Joseph Arthur; Farrell, Robert Patrick

PATENT ASSIGNEE(S): Catalytica Pharmaceuticals, Inc., USA

SOURCE: U.S., 17 pp., Cont.-in-part of U.S. Ser. No. 825,792,

abandoned.

CODEN: USXXAM

Patent DOCUMENT TYPE: English LANGUAGE:

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE US 5922898 A 19990713 US 1997-966335 19971107 US 6194599 B1 20010227 US 1997-825792 19970408 PRIORITY APPLN. INFO.: CASREACT 131:58654 US 1997-825792 19970408

The present invention provides a process for preparing biaryl compds. [e.g., 2-(4'-methylphenyl)benzonitrile] comprising reacting an arylmetal reagent selected from arylmagnesium reagents (e.g., 4-methylphenylmagnesium chloride) and aryl lithium reagents with an aryl halide (e.g., 2-chlorobenzonitrile) in the presence of a catalyst system comprising a catalyst selected from nickel catalysts (e.g., nickel acetylacetonate) and palladium catalysts and a cocatalyst selected from zinc cocatalysts (e.g., zinc chloride) and cadmium cocatalysts.

MSTR 1

G1---G2

G1 = isoquinolinyl G2 = quinolinyl = quinolinyl

Patent location: claim 1

REFERENCE COUNT: 32 THERE ARE 32 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 27 OF 29 MARPAT COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 130:196501 MARPAT

TITLE: Preparation of biaryl compounds by coupling reaction

using palladium/carbon catalysts

Noguchi, Yasuo; Saito, Toshinori; Fujimoto, Katsuhiko; INVENTOR(S):

> Takebayashi, Toyoki Sankyo Co., Ltd., Japan

Jpn. Kokai Tokkyo Koho, 21 pp. SOURCE:

CODEN: JKXXAF

DOCUMENT TYPE: Patent Japanese LANGUAGE:

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT ASSIGNEE(S):

PATENT NO. KIND DATE APPLICATION NO. DATE JP 11035514 A 19990209 JP 1997-193583 19970718 RITY APPLN. INFO.: JP 1997-193583 19970718 PRIORITY APPLN. INFO.: JECTHER SOURCE(S): CASREACT 130:196501

R1R2 [R1, R2 = (substituted) C6-10 aryl, (substituted) aromatic heterocyclyl] are prepared by reaction of R1X (R1 = same as above; X = halo) with R2ZnY(R2 = same as above; Y = halo) in organic solvents in the presence of Pd/C catalysts and phosphines. PhMgBr was treated with ZnCl2 in THF at room

temperature for 1 h, mixed with a THF solution of Pd/C, PPh3, and 4'-iodoacetophenone, and heated under reflux for 1 h to give 50% p-phenylacetophenone.

MSTR 3

G1—G5

G1 = isoquinolinyl G5 = quinolinyl

Patent location: claim 1

L5 ANSWER 28 OF 29 MARPAT COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 118:191764 MARPAT

TITLE: Bis mono- and bicyclic aryl and heteroaryl compounds

(e.g., quinolines) which inhibit EGF and/or PDGF

receptor tyrosine kinase

INVENTOR(S): Spada, Alfred P.; Maguire, Martin P.; Persons, Paul

E.; Myers, Michael R.

PATENT ASSIGNEE(S): Rhone-Poulenc Rorer International (Holdings) Inc., USA

SOURCE: PCT Int. Appl., 61 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 7

PA:	PATENT NO.			KII	ND.	DATE			Al	PPLI	CATI	ON N	٥.	DATE			
WO	9220	642		 A:	1	1992	1126		W) 19	 92-U	S373	6	1992	0506		
														GB,			KP,
		KR,	LK,	LU,	MG,	MN,	MW,	NL,	NO,	PL,	RO,	RU,	SD,	SE,	US		
	RW:													FR,	GΑ,	GB,	GN,
						ML,											
AU	9219	934		Α		1992	1230		A	J 19	92-1	9934		1992	0506		
	6586																
EP	5842	22		A.	1	1994	0302		E	P 19	92-9	1205	1	1992	0506		
EP	5842	22		В	1	1997	1008										
														NL,			
	0650								J1	P 19	93-5	0006	8	1992	0506		
JP	3507	071		B	2	2004	0315										
ΑT	1590 2108	09		Τ		1997	1015		A'	Г 19	92-9	1205	1	1992	0506		
ES	2108	120		T	3	1997	1216		Ε	S 19	92-9	1205	1	1992	0506		
	2102													1992	0506		
US	5409 5656	930		Α		1995	0425		U	S 19	93-1	4607	2	1993	1108		
						1997	0812		U	S 19	95-3	8525	8	1995	0208		
US	6645	969		В	1	2003	1111		U	S 19	95-5	2185.	2	1995	0518		
CN	1187	129		Α		1998	0708		Cl	N 19	96-1	9451.	2	1996	0606		
CN	1100	540		С		2003											
	3625													1997	1210		
	3765									S 20	00 - 4	9639	9	2000	0202		
US	2004	0014	774	A	1	2004	0122		U	S 20	03-6	1734	2	2003	0710		
ORIT	Y APP	LN.	INFO	.:					U	S 19	91-6	9842	0	1991	0510		
									M	O 19	92-U	S373	6	1992	0506		

US	1992-988515	19921210
US	1993-146072	19931108
US	1993-166199	19931210
US	1994-229886	19940419
WO	1994-US14180	19941208
US	1995-521852	19950518
US	1996-652444	19960604

GΙ

AB A method of using the title compds. in which a 1st ring system is (hetero)aryl, a 2nd ring system is (hetero)aryl or (hetero)carboxylic, and both ring systems are either (un)substituted monocyclic with 0-2 heteroatoms, or bicyclic with 0-4 heteroatoms, is claimed, along with pharmaceutical compns. and selected compds. Most of the prepared and claimed compds. are quinolines and quinoxalines. The compds. are designed to inhibit abnormal cell proliferation, and their use for treating psoriasis, atherosclerosis, and vascular reocclusion is claimed. For example, coupling of 2-methoxy-5-(trimethylstannyl)pyridine with 6,7-dimethoxyquinolin-3-yl trifluoromethanesulfonate (prepns. given) in refluxing dioxane containing Pd(PPh3)4 and LiCl gave pyridylquinoline derivative

I. The IC50 of I for inhibiting PDGF-R cell-free autophosphorylation was 0.030-0.070 $\mu\text{M}.$

MSTR 1L

G1---G2

G1 = isoquinolinyl (opt. substd.) G2 = quinolinyl (opt. substd.)

Derivative: and pharmaceutically acceptable salts

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Patent location: claim 3

REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 29 OF 29 MARPAT COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 114:102392 MARPAT

TITLE: Preparation of N-phosphonomethylglycine in the

presence of dipyridyl compounds

INVENTOR(S): Fields, Donald L., Jr.; Grabiak, Raymond C.; Riley,

Dennis P.

10/587100

PATENT ASSIGNEE(S): Monsanto Co., USA

SOURCE: U.S., 7 pp. CODEN: USXXAM

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PA:	TENT NO	•	KIN	D DATE		API	PLICATION NO	O. DATE
US	495272	 3	 A	19900	828	US	1989-38673	8 19890731
IL	95218		Α	19950	124	IL	1990-95218	19900729
AU	905993	9	А	19910	131	AU	1990-59939	19900730
AU	621768		В2	19920	319			
CA	202224	8	A1	19910	201	CA	1990-20222	48 19900730
EP	412074		A2	19910	206	EP	1990-870123	1 19900730
EP	412074		А3	19910	522			
EP	412074		В1	19941	.228			
	R: A	T, BE,	CH,	DE, DK,	ES, FR,	GB, (GR, IT, LI,	LU, NL, SE
JP	030812	81	À	19910	405	JР	1990-202363	1 19900730
JP	060083	07	В	19940	202			
ZA	900597	2	А	19910	731	ZA	1990-5972	19900730
BR	900370	2	Α	19910	903	BR	1990-3702	19900730
HU	209616		В	19940	928	HU	1990-4696	19900731
PRIORIT	Y APPLN	. INFO	.:			US	1989-386738	
OTHER SO	OURCE (S):		CASREACT	114:10	2392		
GI								

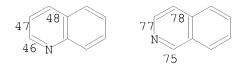
AB (HO)2P(O)CH2NHCH2CO2H (I) is prepared by oxidation of (HO)2P(O)CH2N(CH2CO2H)2 (II) over metal salt (complex) catalysts in the presence of a dipyridyl compound as electron transfer agent. A mixture of II, VOSO4, and salt III in H2O was heated at 75° under 6.89 + 105 N/m2 oxygen for 5.5 h to give I with 83% conversion and 94% selectivity, vs. 97.7% and 51.0%, resp., without III. Also used were 6 addnl. dipyridyl compds.

MSTR 1A

G1---G2

G1 = 46 / 47 / 48 / 77 / 78 / 75

G2 = 46 / 47 / 48 / 77 / 78 / 75



Derivative: and salts Patent location: claim 1

REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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(FILE 'HOME' ENTERED AT 14:03:52 ON 28 JUL 2009)

FILE 'REGISTRY' ENTERED AT 14:04:13 ON 28 JUL 2009

FILE 'REGISTRY' ENTERED AT 14:04:27 ON 28 JUL 2009

L1 STRUCTURE UPLOADED

L2 28 S L1 SAM

L3 602 S L1 FULL

FILE 'CA' ENTERED AT 14:04:59 ON 28 JUL 2009

L4 15 S L3

FILE 'MARPAT' ENTERED AT 14:06:12 ON 28 JUL 2009

L5 29 S L1 FULL

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STN INTERNATIONAL LOGOFF AT 14:07:20 ON 28 JUL 2009